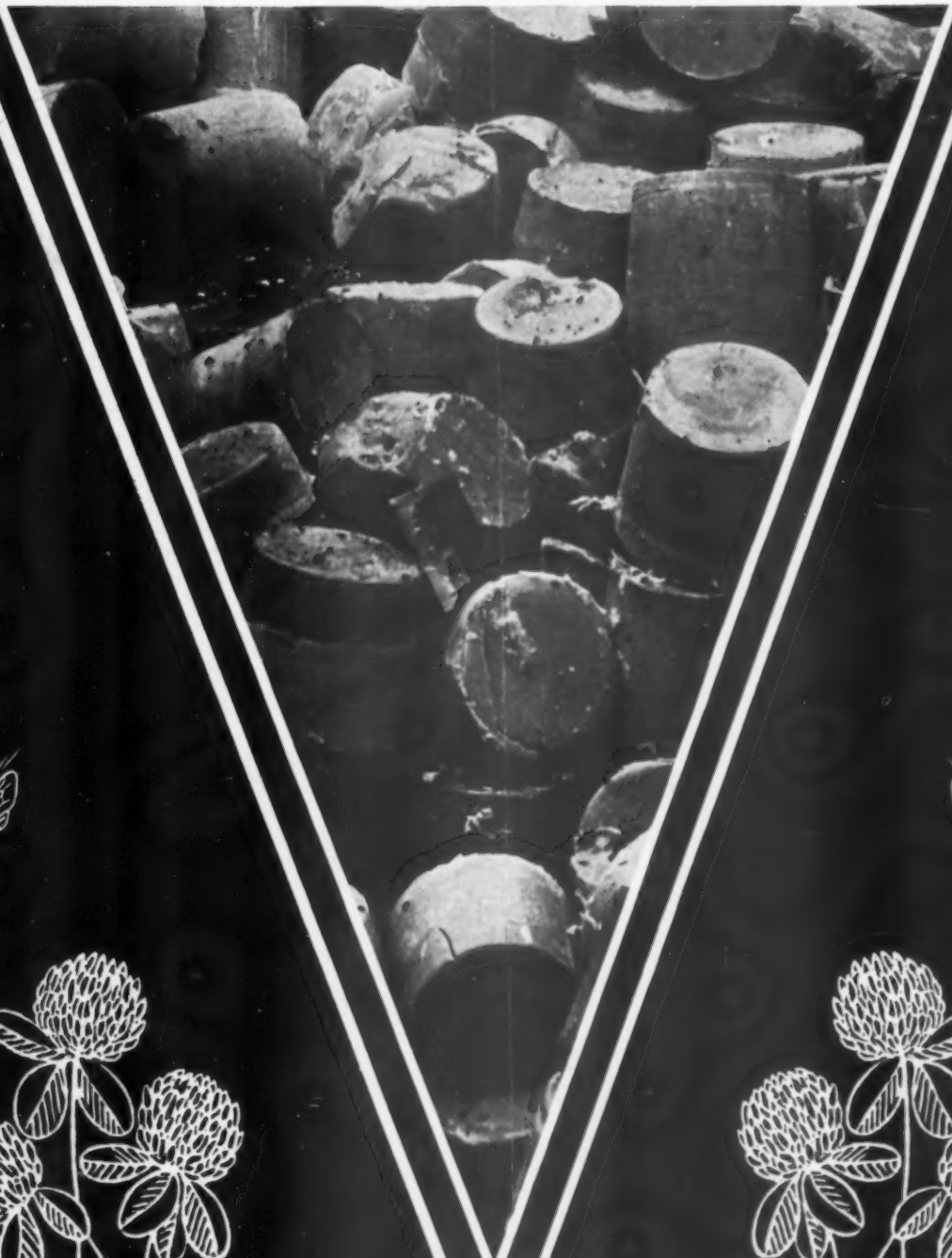
AMERICAN BEE JOURNAL

January 1943

LET THE BEES WAX THE WAY TO VICTORY



January, 1943 AMERICAN BEE JOURNAL Vol. LXXXIII, No. 1

CONTENTS

Published monthly at Hamilton, Illinois. Entered as second class matter at the Postoffice, at Hamilton, Illinois. In United States, Canada and Mexico, $1.00 a year; two years $1.50; three years $2.00; Foreign $1.25 a year; two years $2.00; three years $2.75. Subscription stopped at expiration printed on wrapper.

CATNIP—Ever get any catnip honey? Tastes like it smells. Many minor sources like this in reach of the bees make quite a difference in the crop and in the condition of the colonies—Photo by G. H. Cale.

ADVERTISERS' INDEX

CLUSTERED—Making beeswax; that's the way they do it and they make heat enough to radiate like a summer sidewalk. Soon the tiny wax scales glisten and new comb is born.

"Remember Pearl Harbor—With Beeswax"

—MRS. I. F. GORDON, *Ames, Iowa*

Right, Mrs. Gordon, and here is how:

Sort out the poorest comb in each ten and replace it in 1943 with more substantially built comb from this season's honeyflow. Scrape all burr comb from top bars and bottom bars, hive bodies, covers, bottom boards.

In our own experience, the average weight of extra wax obtained in this way will amount to at least half a pound of wax per colony per year and this figure, applied to the total number of bees in the United States, if followed by each beekeeper, would give approximately 2,000,000 extra pounds of wax.

• EDITORIAL •

MAXIMUM PRICE REGULATION

BUTTON, button, whose got the button? One is reminded of this when reading OPA's new maximum price regulation MPR 275 placing a ceiling on extracted honey in all forms. One can readily see that the beekeeper who sells his honey in sixty pound cans in bulk will have no difficulty in understanding the regulation and applying it to his own particular circumstances. Unless he is not familiar with the customary dollar and cents trade differentials for grades of honey other than U. S. No. 1, he should have no difficulty in determining what the maximum price or "ceiling" is in his own case. But the vast majority of beekeepers, those who package a part or all of their crop, will find the regulation confusing to the extent that little or no regard will be given to it. When they try to determine their "base price", "permitted increase", "weighted average cost", "class of purchaser", and "factory door cost" it is likely they will throw the whole regulation in a waste basket.

The large honey packer who has had a well organized sales policy should not have too great difficulty in determining what are maximum prices for his various packs to his various classes of buyers. On the other hand, a large honey packer reports that he has had two accountants and eight people in his office for ten days trying to determine what his ceiling prices are going to be. If this is the case, one can readily imagine what great difficulty the average beekeeper-packer is going to have in abiding by this regulation.

It should be understood that we have no criticism of the purpose and intent of the regulation. The maximum price, 12 cents per pound for grade U. S. No. 1 extracted honey amounting to 112.2 per cent of parity, is a good price for honey. The need for this regulation has been felt for a long time and we have urged its issuance for many months. What the industry needed was ceiling prices on all sizes of containers, for all grades of honey, and to all classes of buyers but in the form of actual figures. The confusing and complicated formulae which it has been handed in turn can scarcely be considered satisfactory. While they do permit the packer, wholesaler, and retailer to increase their prices approximately seven cents per pound over what the 1941 crop sold for and allow for the same margin of profit, it is our opinion that the methods for doing this are complicated to the extent that most of us will throw up our hands in a hopeless gesture not having the records or other means for applying them.

—v—

VOLUME LXXXIII

WITH this number, the American Bee Journal begins a new volume, the eighty-third of its history. In that time there have been times of prosperity and periods of adversity, there have been times of bitter war and of long sustained peace. In fact the people of America have been called upon to pass through about all of either good or ill that can come to a nation within that time.

The fact that previous times of bitter conflict have been followed by periods of happiness and prosperity can give us faith that it will be so again. For the present we are called upon to sacrifice the comforts of everyday life and to expend our energies in an all out effort to remove the blight of terror and injustice brought upon many innocent men by those who know little of right and nothing of honor.

America desires only that the right of life, liberty and the pursuit of happiness shall be open to every individual no matter what his race, color, or station in life. We demand the overthrow of those who trample underfoot the rights of weak or unfortunate men and we propose to see that the job is done.

To such an extent are normal human activities geared to the war effort, we find but little interest in the usual events of the season. By this time next year, let us hope that a change will be in sight. By the time we are ready to close the volume that we now begin, we anticipate that we may express the wish for a "Happy New Year" with a reasonable expectation of its realization.

—v—

ORDER EARLY

IT is only good business to anticipate one's needs and order such things ahead of time in any year.

This time with war pressure and the many shortages and uncertainties it is more than ever important. No matter what one wants, there is not enough to go around and the tardy customer must go without. We are becoming accustomed to bare markets and are no longer surprised when a merchant reports that he is sold out of wanted goods.

In fact so common is this condition that one should use care not to order more than necessary to avoid depriving others of much needed supplies. We should cut our requirements to the minimum and then order as soon as possible.

The shipper of package bees is now making up his cages for spring deliveries. Tin cans, wire screen and sugar are all subject to rationing and it is important that no more be ordered than will be needed to fill his immediate requirements. By placing your order for package bees now you will help him to determine what his volume will be and enable him to insure prompt delivery at the proper time. If he buys more material than will be needed he will deprive someone else of a supply. If he buys too little it will be too late to get it in time to fill your order when it comes in late next spring.

The manufacturer of bee supplies is subject to a multitude of irritating delays caused by the war. Every item that enters into the goods he makes is in short supply and he often must face long delays in getting his raw materials. Early orders will help him to estimate his needs and keep goods moving. Now is the time to buy what we need and buy it early.

—v—

WHERE IS OUR MOSES?

HONEY is the step child of agriculture. It serves many purposes except its own. Honey is still selling today in the same way it has been selling for the last one hundred years. Nobody seems to devote much time to experiments and efforts to improve the marketing of honey other than the changes which have been made by some of the cooperative marketing groups in selling crystallized honey and the so far restricted attempt to market comb honey in a wrapped package.

A clip sheet from the United States Department of Agriculture in August of this year notes that Great Britain has been receiving millions of five ounce packages of dried whole egg powder. It has not been long since eggs were either sold as eggs in the shell or as eggs in the pail or keg, broken out of the shell. Now it is dried whole egg powder. In each package the equivalent of one dozen shell eggs are sent to England in small space.

Dried whole egg is also packaged in three pound tins for the United States Army and table users constitute nearly 95 per cent of the Army's use of the product. The rest is for baking. Much of the dried eggs appear as scrambled eggs on the table.

We need a research division of American Honey Institute or we need to stimulate those interested in honey research to get away from some of the obscure biological problems and get into the things which will mean an increased use of honey on the American table and in American food products. We are wasting time. Let's get busy.

—v—

BEES IN THE ORCHARD

EVERY year less is heard of the poisoning of bees in the apple orchards. The apple growers now seem convinced of the value of the bees to them and are making a sincere attempt to control insect pests without killing the bees.

It is men like Robert Clark, one of Iowa's most successful orchardists, who are responsible for the change in sentiment. He has told Iowa fruit growers that when he began using bees in his orchard he doubled his crop and that his most significant example of their value was an increase in his Delicious crop to nine times the former yield. In the face of results like that the fruit grower is likely to feel kindly toward his neighbor who keeps bees.

♦

HONEY FED FISH

SOME unusual experimental work with the use of honey for feeding animals has been done in Japan. The honey was mixed with flour thus providing the equivalent of bread and honey. Reports indicate that results were especially satisfactory with fish and that several kinds all thrived on this diet. It was found that the flesh of honey-fed trout was moderately fat and very delicious with a savory odor.

We have tried soaking oatmeal in honey as a food for goldfish in the pool where we water the bees. They eat it very eagerly but we lack information as to the effect on the health of the fish.

Honey Containers

ALL PRICES SUBJECT TO CHANGE WITHOUT NOTICE

All our tin containers are standard size. Glass containers are clear, include caps and put up in cartons suitable for reshipping. Write for prices on carlots, as we quote very low prices. If your order is for $50 at the prices shown, deduct 5%; if $100, deduct 10% in ordering tin and glass containers or both together. Style glass supplied will be what we can buy. Pails will be supplied with bails as long as stock lasts, after that without ears and bails. Glass styles and bails for pails regulated by WPB conservation orders beyond our control. Prices f.o.b. following points:

Cat. No.	Description	Watertown	Sioux City	Springfield	Lynchburg	Albany
66	5 lb. pails, 50 in ctn., wt. 27 lbs.	$3.20	$3.30	$3.25	$3.35	$3.40
69	10 lb. pails, 50 in ctn., wt. 45 lbs.	4.85	5.05	4.95	5.10	5.10
625	5 gal. cans, 16 in ctn., wt. 54 lbs.*	5.49	5.70	5.56	5.67	5.71
630	½ lb. jars, 24 in ctn., wt. 12 lbs.	.72	.78	.72	.68	.74
631	1 lb. jars, 24 in ctn., wt. 17 lbs.	.92	1.04	.92	1.00	1.01
632	2 lb. jars, 12 in ctn., wt. 14 lbs.	.60	.69	.60	.65	.67
633	3 lb. jars, 12 in ctn., wt. 18 lbs.	.65	.72	.67	.67	.67
635	5 lb. r'd glass pails, 6 in ctn., 11 lbs.	.52	.59	.52	.56	.57

Jars in ½ and 3 lb. sizes subject to stock available due to WPB simplification of sizes

*Can only be shipped 16/c. Write for bulk prices to Sioux City and Springfield only.

WINDOW CARTONS

These pink and green cartons with large cellophane window help sell section honey. We also supply comb honey shipping cases and cartons for shipping extracted honey too.

644—4¼"x1⅞" Beeway
645—4¼"x1½" No Beeway
646—4"x5"x1⅜" No Beeway

100, $1.00; 500, $4.50
1,000, $8.75

Weight 6½ lbs. per 100; 55 lbs. per 1,000. All postage extra.

HONEY SERVERS

No Drip servers hold a pound of honey and make an attractive sales item. Colored handle, clear glass, trigger control. Much lower price 12/c f. o. b. factory. Write for quantity prices, subject to stock. No. 628 No Drip Honey Servers, weight 1 lb. postage extra. Each 40c.

REVELATION COMB HONEY WRAPPERS

		100	500
649	Colored 4¼, Blue and White	$ .90	$3.95
664	Plain 4¼	.60	2.70
658	Colored Bag 4¼	1.05	4.35
430	Bag filler device, weight 2 lbs.		.50

Above postage extra. Weight, 100—1 lb.; 500—5 lbs.
Write Lynchburg for prices on all cellophane plain wrappers.

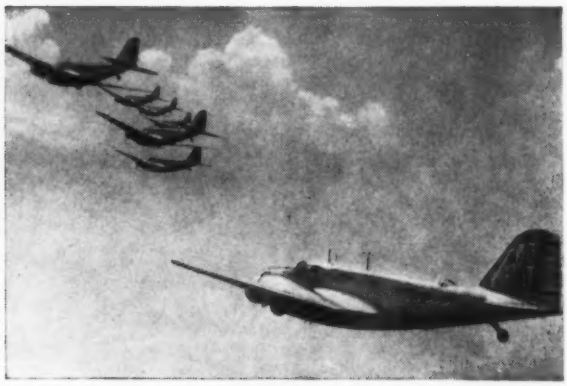
Ask for our general catalog too if you wish other items.

G. B. LEWIS COMPANY : : : Watertown, Wisconsin

BRANCHES: COLONIE & MONTGOMERY STS., ALBANY, N. Y., 1117 JEFFERSON ST., LYNCHBURG, VIRGINIA; 118 SO. LIMESTONE ST., SPRINGFIELD, OHIO; 214 PEARL ST., SIOUX CITY, IOWA

SEND YOUR ORDER TO OUR OFFICE NEAREST TO YOU


HANGING IN THE VICTORY BALANCE !
DEMANDS OF WAR
V
THE NECESSARY GUNS-SHIPS-PLANES AND TANKS TO WIN
YOUR SCRAP COLLECTION
CONKLEY
V-234



KEEP UP THE SCRAP DRIVE

We have been asked by Donald Nelson to urge all beekeepers to continue the salvage drive for scrap. Iron and steel are much in need to mix the enormous supply of light scrap coming from the original scrap drive.

American Industry and American Farms constitute our most prolific source of heavy scrap. Industry supplies most of it, but not enough, so the farmer becomes an important figure in this effort to keep our steel mills operating at capacity during the critical winter and spring months.

Farmers so far, because of their heavy production program, have had only a little time to devote to assembling scrap. We have seen much scrap on the farms on which our bees are placed that has not yet been turned in. Much scrap is in junk yards seemingly undisturbed. Many a farm building houses heavy metal. It must be remembered that ice, snow, rain and mud will not stop the fighting men and it should not stop the scrap harvest. It is not too much to ask in the face of a national emergency.

As Eric S. Marks, Chief, Farm Scrap Section, puts it to us in the words of the gridiron, "we are handing you the ball . . . . and we know you'll score!" So get busy and do your part.

The nation's mighty steel industry, with production figures reaching astronomical proportions, enters the second year of the war, and it can be said that the length of our struggle to a large extent depends on our ability to get scrap iron and steel in quantities enough to keep the mills going.

The demand far exceeds that of any previous war. Steel is made by melting pig iron and scrap iron together and thus greatly increasing the pig iron requirement. Every ton of scrap takes the place of one ton of pig iron and to make a ton of pig iron requires two tons of ore, 1.2 tons of coal and a half ton of limestone, so scrap represents a heavy saving. There are not enough mining, transportation, and blast furnace facilities to handle this tonnage.

Winter months then offer a challenge to the red blooded beekeeper to get the scrap out so it can be used. Everyone has been asking what he can do in this big battle for freedom. Here is something you can do. Go to it!

—v—

TRUCKS AND GASOLINE

We are receiving many letters from beekeepers who think they cannot continue operations with the amount of gasoline allowed them quarterly by their local board for bee yard and other essential production activities. It may be true that the amount of gasoline will not be sufficient. However, all farmers, including beekeepers, have been repeatedly reassured by the Office of Defense Transportation and by Mr. Jeffers and his officials that no farm is to be put out of business as a result of the certificate of necessity plan of vehicle operations.

To quote from a recent letter from the Office of Defense Transportation:

"As long as the tires, spare parts and gasoline are available, the Office of Defense Transportation will help every farmer get enough tires, enough spare parts and enough gasoline to carry on his necessary trucking operations. Any farmer who is dissatisfied with the amount of gasoline allowed him should take the matter up with his county agent, or with his county war board or with his county farm transportation committee. If it is the opinion of these agencies that any farmer should have more gas, he will be recommended for a revised certificate which will be made out to the Office of Defense Transportation district manager serving the county in which the farmer lives and these managers have been instructed to accept the recommendations given, so all farmers who have received their certificates allowing them mileage and gasoline for any period are urged to delay appeals until it becomes obvious that they will not have enough gasoline. "Also if the farmer has not received his certificate, he should go to his war price and rationing board and he will be granted enough gasoline to operate until January 1. If his certificate is short of gas, he can also take the same method while he is presenting his case to his county agent, county war board or county farm transportation committee."

It seems that this should take care of every beekeeper satisfactorily. If these assurances mean what they say, beekeepers will not be restricted in essential transportation because of gasoline.

As far as trucks go, we are informed by John L. Rogers, Director, Division of Motor Transport, of the Office of Defense Transportation, that since "no more civilian trucks are being made, those now in operation must be conserved to the limit. In the end the extent of the operations which each truck owner will be permitted to carry out will be determined by the efficiency in his use of his equipment."

Under the new rationing plan, local boards December 1 began accepting and acting on applications for recapped or replacement tires. According to Bernard M. Baruch, "It must be kept in mind that we are restricting gasoline only as an effective measure to hold down tire use. Each time a motorist turns a wheel in unnecessary driving, he must realize it

is a turn of the wheel against our soldiers and in favor of our enemies. When it comes to rubber, we are a 'have not' nation. If we make a mistake, it must be on the side of stern conservation to anticipate the worst dangers that may lie ahead, and if the most optimistic estimates of our rubber program are achieved, the amount that can be spared for civilian cars will only be enough for recapping and strict replacements provided conservation measures are carried out in the spirit in which they were intended."

—V—

THE CURRENT BEESWAX SITUATION

By ROY A. GROUT

LATE Washington information indicates that the requirements for beeswax by the Army, Navy and Air Force, will amount to 800,000 pounds annually. We presume this takes into consideration only the amount going directly to government procurement agencies and does not include a large quantity used in industry to supply many finished products used in fighting this war. We presume that it did not include the beeswax used in the manufacture of medicines and pharmaceuticals. At one time this was estimated by a government official at 1,000,000 pounds.

Many of the uses of beeswax are war secrets, and so we will probably never know what they are. Some time ago we submitted a list of uses to the Office of War Information for their censorship. They suggested that we only say that beeswax is used as a protective coating on ammunition, airplanes, shoes and other articles; for pharmaceuticals and medicines; and in chemical warfare, so that is the way we give it to you.

Early in the year we made the prediction that in all probability there was only going to be half enough beeswax available to industry that there formerly was, and as the months roll by, conditions continue to verify our prediction. On the 23rd of May, beeswax was put on a third list of materials under a government import order. Those materials on the first and second list were given preference over those on list three. During the summer, officials of the wax and resin section of WPB attempted to obtain licenses for the importation of beeswax, realizing there was going to be a shortage. Only recently have a few licenses been issued, principally from the West Indies, with a limited quantity from Africa, and a few for shipment from Brazil. Thus, from the 23rd of May until sometime in late fall, no licenses to import beeswax were issued and the only importations which came to this country were contracted for prior to the issuance of the import order or possibly came on ships over which the government had no control.

Due to the seriousness of the shipping situation, licenses which were issued were restricted to those areas where it would be more likely to get shipments to this country. These licenses are good only until December 31, 1942 and WPB is now working on allotments for 1943.

Another distinct matter which complicates the foreign beeswax situation is the Industrial Wax Ceiling Order which became effective November 13, 1942. Because of the lower price set as a "ceiling" on African grades, importers are of the opinion that most of the African beeswax will find its way to England. Formerly we imported approximately a million pounds of crude beeswax from Africa each year. Importers are also having trouble buying other foreign beeswax at prices at or below the ceiling prices. In view of these situations, we again predict that beeswax will continue to be in good demand and more scarce as this country's stocks are consumed.

In the November issue of the American Perfumer and Essential Oil Review two writers, commenting on war problems affecting the cosmetic industry, mention that beeswax will be allocated. This was discussed with an official of WPB a month ago and at that time it was his opinion that beeswax would go under allocation, but that it would be some time before this would happen. **If this takes place, the beekeeping industry should be given consideration beyond that extended to it today.**

At the present time, there are no limitations placed on the use of beeswax except in the production of comb foundation. This is the only field of beeswax use with which the writer is familiar in which beeswax is not consumed or lost. Only when placed in the beehive does it return to the market. This limitation is in the form of a restriction on the production of farm equipment which gave to manufacturers of bee comb foundation a quota for new use of 57% of their 1940 or 1941 production in pounds, and a quota of 130% for repair parts. There is no justification from a beeswax standpoint for limiting the use of beeswax in this field which in turn is the birthplace of the beeswax. **If the honeybee is to WAX THE WAY TO VICTORY, it must not be allowed to be restricted in its ability to produce.**

In spite of these situations which greatly irritate us, it must be remembered that we are at war and it is every man's duty to do all he can to help win it. It is going to be largely up to United States beekeepers to supply beeswax needed by the Army, Navy and Air Force as well as by essential industries. Formerly this country consumed approximately 9,000,000 pounds of beeswax annually. Four million pounds were produced by United States beekeepers with the balance or larger part being imported from Brazil, Chile, the West Indies, African sources, and Egypt. It is apparent that much of this beeswax cannot get to this country due to war conditions. It has been necessary to put more strategic materials in those ships which could get through. Until things break, more in our favor from a war standpoint, we can continue to assume that no great quantity of foreign beeswax will be imported. So it is going to continue to be the duty and privilege of all beekeepers to produce more beeswax. It is up to United States beekeepers to save every scrap of beeswax produced by their bees.

Producing more beeswax does not mean increasing the number of colonies. **This is not going to be possible under limitations placed by WPB on manufacturers of bee supplies.** This is not going to be possible because of the shortage of labor. However,combs may be culled drastically. Fewer combs may be used in supers, cappings may be cut deeper, hive and frame parts may be habitually cleaned of all burr and brace combs, the gathering of all bits of wax should be practised constantly. Wax should be protected against damage by bee moth. It should not be stored where losses will occur.

We continue to predict that United States beekeepers can place upon the market a million more pounds of beeswax in this manner.

OUR CHANCE TO BE FREE

Congressman Hatton W. Sumners recently said in a speech: "If we could realize our danger, strikes would cease. There would be no slow downs. Disgraceful profits would cease. Public opinion would get busy. Leadership would rise in public officials, forgetful of all else; the masses would get busy, and, all together with one will and one purpose, we would finish the job. There is no more solidifying, no more energizing influence than the realization of a common danger. Let us pledge each to the other that, so help us God, this shall remain one country on the face of the earth, regardless of what it costs, where human beings shall have an opportunity to be free."

(From Jenner's Monthy Letter, Vol. XXX, No. 2, October, 1942)

MAXIMUM PRICE REGULATION 275

MAXIMUM or "ceiling" prices for "bulk honey" and "packaged honey" were issued by the Office of Price Administration November 27th and became effective December 3rd. "Bulk honey" was defined as honey in a container of a capacity of more than ten pounds. "Packaged honey" means honey in a container of not more than ten pounds capacity. As in the case of the regulation fixing honey at March prices the order refers only to liquid or extracted honey and does not apply to sales of comb honey.

According to OPA, this action will affect the price of honey in all forms of packages from the time it leaves the beekeeper's hands until the housewife makes her purchase at the neighborhood store. It will necessitate an increase in the price to the consumer of approximately seven cents per pound over that at which the 1941 honey crop was sold.

Beekeeper-producer sales of grade U. S.No.1 or better extracted honey in "bulk" containers are set at 12 cents per pound f. o. b. his shipping point. This amounts to 112.2% of parity. Grade U. S. No. 1 is defined as a grade of honey which is (I) fairly clean, (II) free from damage caused by turbidity, overheating, fermentation, honeydew, objectionable flavor, odor or other means, (III) well ripened, and (IV) weighing not less than 11 pounds and 12 ounces per gallon of 231 cubic inches at 68 degrees F. No statement is made in regard to color and flavor so it is assumed that the ceiling applies to grade U. S. No. 1, regardless of color and flavor.

The maximum price f. o. b. producer's shipping point for "bulk" honey of a grade less than U. S. No. 1 is to be determined by reducing the maximum price established by this regulation, by the customary dollars and cents trade differentials which were in effect during the "base period", September, October, and November 1941. It is apparent that each beekeeper is assumed to know what these differentials were and is to use them in calculating the maximum price or "ceiling" for the grade of honey which he desires to market. This same method is used in arriving at "ceiling" prices for imported honeys.

In case a buyer furnishes containers in which "bulk" honey is bought or exchanges containers for those shipped by the beekeeper, the maximum price for grade U. S. No. 1 or better extracted honey is set at 11½ cents per pound f. o. b. beekeeper's shipping point. Also, the cost of shipping the empty container back to the beekeeper, if any expense is involved, is to be paid by the buyer of the honey.

The maximum prices for the sale of "packaged" extracted honey by the distributor, wholesaler, packer, and retailer are calculated in a complicated manner. Those who wish to sell their honey in any other way than in bulk form, as a beekeeper selling his honey in lots of sixty pound cans, are advised to obtain a copy of this regulation, MPR 275 entitled "Extracted Honey." Briefly stated the regulations are as follows:

A distributor's maximum price for both "packaged honey" and "bulk honey" are established by use of a formula which allows him the same dollar margin of profit that he had during the September-November 1941 base period. Distributors include the large honey packers, processors of extracted honey, and the beekeeper who packs a part or all of his crop.

It is necessary to determine the maximum f. o. b. shipping point price for each kind, flavor, brand, container type and size, of "packaged honey" to wholesalers, to retailers, and to the ultimate consumer. This is computed by adding his "permitted increase" to102% of the "base price" for each item. For example, a packer sold 200 half-pound jars of a particular brand of honey at 6 cents f. o. b. his shipping point and 800 jars of the same brand of honey at 7 cents. Those that he sold to retailers or to ultimate consumers are a separate calculation and are excluded. Thus

200 jars at 6 cents	$12.00
800 jars at 7 cents	56.00
Total 1000 jars	$68.00

$68 divided by 1000 equals 6.8 cents. This is the "base price" for half-pound jars of this particular brand of honey.

To determine the "permitted increase" he adds a computed increase in the cost of the honey he is packing to a computed increase in cost of transportation. Suppose the packer purchased during the "base period," September, October, and November 1941, a total of 4000 pounds of honey of two grades as follows and packed 1000 pounds more of his own crop which he is permitted to figure at 5.6 cents per pound:

3000 lbs. U. S. Grade No. 1 at 5.7 cents	$171.00
1000 lbs. U. S. Grade No. 2 at 5 cents	50.00
1000 lbs. Beekeeper's own crop at 5.6 cents	56.00
Total 5000 pounds	$277.00

$277 divided by 5000 pounds equals 5.54 cents. The "cost increased per pound" is the difference between 11.8 cents and the above figure termed a "weighted average," thus:

11.8 cents minus 5.54 cents equals 6.26 cents. This is the "cost increase per pound" of honey.

The increase in cost of transportation, if any, is the difference between the average cost of shipping "packaged honey" during the months of September, October, and November 1941, and the average cost of shipping honey during the period June, July and August, 1942. Thus if it cost him 0.5 cent per pound during the three months in 1941 and 0.6 cent during the 1942 period, the amount allowed for increased shipping cost is 0.1 cent per pound.

Adding this to "cost increase" for honey, 6.26 cents, we have a total permitted cost increase amounting to 6.36 cents per pound. Since the example we are using is a half pound jar, we take one half of this amount or 3.18 cents. Our final calculation is as follows:

102% times 6.8 cents (base price)	6.936 cents
Permitted increase	3.18 cents
Seller's new maximum price on half pound jar of particular brand of honey	10.116 cents

In this calculation, carry to the third decimal place, then adjust the

total to the nearest ¼ cents. Thus we adjust our total 10.116 cents to 10 cents.

On a resale of "bulk honey" a beekeeper-packer follows the same procedure with two exceptions in determining his new maximum price. The first exception is that he uses his "base period" price instead of 102% times that amount. The second exception is that he must compute his "base price" only upon the resale of bulk honey made during the "base period" to the particular class of buyer, e. g. wholesaler, retailer, or consumer for which he is computing his maximum price.

After calculating his maximum ceilings for "packaged honey" the beekeeper-packer selling to a wholesaler must send him a written statement which gives for each item his computed "base price," his new maximum prices and the amount of the difference between the "base price" and the "maximum price." This is called the "wholesaler's permitted increase." If he sells direct to a retailer, the same procedure must be followed and is referred to as the "retailer's permitted increase." Obviously, these "permitted increases" enable the wholesaler and retailer to determine their new selling prices by adding these figures to their already established ceilings. In the case of a sale of packaged honey to a retailer, a "Notice of Retailer's Permitted Increase" must be pasted or stamped on the outside of each shipping case or printed on a slip and enclosed. This reads as follows:

Notice of Retailer's Permitted Increase

"Your new OPA ceiling price for the enclosed item is your March ceiling for such items plus_____cents per retailer container. OPA requires you to keep this information for examination."

Every beekeeper who sells "Packaged honey" or resells "bulk honey" must keep all his existing records which were the basis of his computations for so long as this regulation remains in effect. He will also have to execute and file two forms of No. 1-A, 1-B, and 1-C, which are obtainable at any OPA office, with the office of Price Administration, Washington, D. C. within ten days after he has determined his maximum prices.

Violation of any provision of this regulation are subject to criminal penalties, civil enforcement action, license suspension proceedings, and suits of treble damage. Both the buyer and the seller are guilty under the regulation in case of a violation.

It appears that the beekeeper who produces his honey and sells it in quantities in "bulk" form will not have any difficulty in understanding or concurring with the purposes of this regulation.

But the beekeeper who is in part or in whole a packager of honey which he sells through ordinary channels of distribution should obtain a copy of this regulation MPR 275, and fully acquaint himself with the procedures required by OPA.

— V —

BERGAMOT IN THE GARDEN

Emil H. Weidenbach, of Chicago, sends us a clipping from a paper which comments on the wild bergamot:

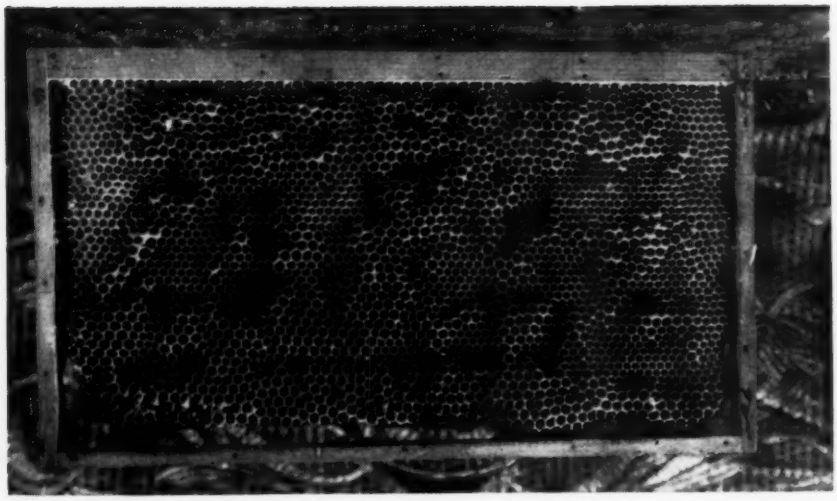
"Among the wild flowers that demand attention on the farm and in other parts of Chicagoland, the bergamot wins top billing. It's a most beautiful and showy member of the mint tribe with lovely purple or magenta blossoms. [If ever a wild flower deserved a place in a garden it's this species.] The butterflies like this gay wild flower and so do the humming birds.

BRAGGING

The Oregon Farmer, editorially September:

"Sometimes I wonder if we are not a nation of braggarts. We think we are the best people on earth and we do not hesitate to tell the other fellow about it. What is worse, we tell ourselves about it. We have told it to ourselves so much that we believe it; so much that we have assumed that there is nothing we can't do. We have come to believe that we can't lose a war, for instance. Let me tell you that we can lose a war. Let me add that we will lose a war if we do not lose our individual and national egotism and get right down to the business of winning one. Let's put our shoulders to the wheel and produce like the enemy produces and fight like the enemy fights. If we don't—yes, you are mighty right, we can lose this war, or take a generation to win it. We don't want to take that long. We must not let it take that long."

"The Acme Munitions Works ought to give me work employing my LEFT hand. Look what's happening."

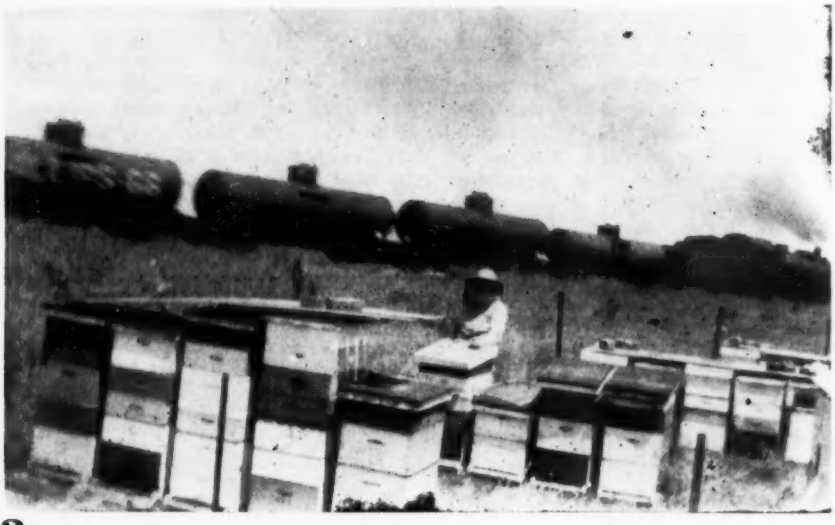


1

1—AN ODD COMB

This picture is from Rev. John Ferlin, of Lemont, Illinois, showing comb the bees sometimes build under unfavorable conditions. We have seen such combs many times, often with both worker and drone cells intermixed and blended together with transition cells so that the poor bees probably know not what to do with such an absurdity.

—v—



2

2—DISTURBING BEES IN WINTER

It has been the accepted theory that disturbing colonies of bees in the winter period like opening the hives, disturbance from mice nesting and chewing combs, jarring, shaking or vibrations are not desirable and this is true whenever it is possible to avoid disturbances. Actual disturbance, however, does less harm than is ordinarily believed to be the case.

A good bee range existed some miles from our home yard and the only outyard site available was along a railway fence line where twenty or more heavy trains pass every twenty-four hours. In spite of this, a yard of twenty colonies of Caucasian bees has been on the location three years and they have been up to the average of any others in honey production with a winter loss of only one colony in the entire time.

The vibration has been enough to shift some hives forward one and a half inches from their position. The picture gives a fair view of the apiary.

We have noticed little, if any, difference in the performance of the queens and the outyard will, no doubt, remain for some time in this place.

Alfred P. Johnson,
Illinois.

—v—

3

3—FANCY AND WORTH IT

Here are two ounce samples of imported honey, packaged and sold by Seifert & Mann of Chicago, from a stock of honey obtained at Port Barrios, Guatamala because Great Britain and the United States put the owner on the black list. It was a German owned exporting company.

The honey was produced in the high mountains on the western slope. Coffee honey is the richest but I think the mulberry is nearest akin to our South California blend.

FEATURES

Dangleberry—Bees like the tiny white blossoms of the various wild huckleberries. This is the dangleberry of the Ozarks.—Photo by Paul Hadley, Piggott, Arkansas.

A field of yellow sweet clover, not in Illinois, but in Colorado. White and yellow biennial sweet clovers vie with each other for annual supremacy, now one, now the other, showing the greater acreage.—Photo by Ben Knutson, Colorado.

HONEY PLANTS OF ILLINOIS

By CARL E. KILLION

THE state of Illinois is 385 miles in length from north to south and 216 miles in width at its widest point. The altitude varies from an 800 foot elevation in the northern part to approximately 600 feet in the southern part. Rainfall, blooming periods of plants, and soil formation have their variation in the state. Although most of the state has a share of fertile soil in the flat prairie lands and valleys, there are portions where soil is very poor and unsuitable for any type of farming or honey production.

A list of the main honey plants of Illinois would perhaps not exceed twenty in number; the major ones would total about eight. Of this list of eight major honey plants three of these are clovers. Sweet clover leads the list of all honey plants. White (or Dutch) is second in value and alsike rates third. The remaining five major honey plants are heartsease, aster, dandelion, basswood and goldenrod. There are many other honey plants valuable to the beekeeper. A minor honey plant in one part of the state may be a major honey plant in some certain area. One very fine honey comes from blue vine or climbing milkweed found along the Wabash and Ohio rivers. The areas producing this very fine honey are rather small and the amount produced is of limited quantity.

By dividing the state into four equal sections a description of the honey producing areas can be given to better advantage. Starting from the north or top, most of sections one, two, and three would constitute the major part of the sweet clover area. Sweet clover is to be found in all parts of the state, more or less in spots, but it is not as plentiful anywhere else as in the areas mentioned. The most of the white (or Dutch) clover and alsike are to be found in the upper three sections. These three sections are also best for dandelion. The two central sections cover a major portion of the heartsease area. Heartsease is to be found in much of the lowlands in the fourth or bottom section.

♦

Heartsease, one of the many Polyganums, often carpets mid-west fields from August 15th to mid September, a glorious sight. True heartsease honey is light in color and among the finest for flavor.—Photo by Paul Hadley, Piggott, Arkansas.

In the two lower sections of the state is to be found the most aster, Spanish needle, goldenrod, locust, basswood, bluevine, and tulip poplar. In this lower half may be found large areas of boneset. Reports vary from a small yield to none at all.

Considering the distance from the north to south end of the state being almost 400 miles, the blooming dates between these two areas will differ as much as three and sometimes four weeks. There is quite a variation from one season to another in blooming dates. Any date given for the blooming period of a certain plant or tree is an average date and for the central part of the state only.

Bees start working on maple, elm, box elder, and willow near the middle of March. Occasionally a warm spell in February will bring out the blossoms on these trees and bees will be gathering nectar and pollen at this early date. Within a few days a cold wave with snow puts an end to this early work. Fruit bloom starts with apricot about April 10th and finishes with apple which ends about the first week in May. Dandelion blooming from about May 1st to the 12th yields very good some years and it comes at a very critical time of the year. Bees are in need of pollen and nectar for the very heavy brood rearing that is taking place at this part of the season. Dandelion has been known to yield a full body of honey. This honey is consumed by

The old stand by of a previous generation, white Dutch clover, only appearing in sufficient quantity to give a major crop once in ten years. It still augments the honey from other clovers enough to remain important.—Photo by J. C. Dadant.

the colony by the start of the clover flow. Some years of inclement weather during most of the blooming period causes it to fail to yield except a very small amount.

Following the dandelion or near May 20th the white Dutch clover is normally getting pretty well in blossom. Black locust is in blossom a few days previous to the starting of the white clover flow. Alsike starts at approximately the same time as white clover. Years ago before sweet clover made its appearance in central Illinois, the white honey flow ended sometimes in the latter part of June.

During these years beekeepers had to use caution in not removing too much honey from the colonies, since there would be a lapse of about six weeks before the heartsease flow started. This was especially true of apiaries located on the flat prairie land. A six week period without any nectar coming in caused much starvation and depleted worker strength of colonies when heartsease did come. Colonies that were short of stores after the removal of the white honey had to have some of this honey returned to them. With the introduction of sweet clover this condition has changed favorable to the beekeeper. Records during the past few years show that sweet clover has in many cases continued to bloom and yield well up into the month of September. The continued blooming of this honey plant not only gives a longer white honeyflow but the colony is in much better condition for the heartsease flow. Yellow sweet clover locally or in the surrounding counties is not grown in amounts to yield any surplus. A short distance across the state yellow sweet clover is as important as white, since it is grown in abundance. The yellow variety blooms about two weeks earlier than the large biennial white, the white starting to bloom early in June.

Beekeepers in areas that have white Dutch, alsike, yellow and white sweet clover have something to be thankful for. White and alsike flows end near June 25th, and since sweet clover has already been yielding there is no cessation in the flow. Fields of sweet clover being pastured continue to bloom long after unpastured fields have ceased to bloom.

Sweet clover honey shows a marked difference due to the type of soil producing it. For several years the writer has had apiaries located on yellow silt loam, brown sandy loam, and black clay loam. The difference could be noted easily. Honey produced on the yellow silt loam was slightly darker in color and thinner in body than honey produced on the darker soils. The honeyflow on the darker soils would always start as much as ten days later than on the lighter soils, but the flow from the darker soils would last sometimes as much as three to four weeks longer.

The writer has seen the mammoth red clover yield considerable surplus at least four times within the past twelve years. The first year it was known to yield a surplus was in 1917. Or this was the first year that observations were made. The season of 1940 gave a 48 section average from this source alone. The honey was a beautiful white honey of exceptional heavy body and fine flavor. These yields are made in years when there is a prolonged dry spell.

Heartsease, commonly called smartweed, begins yielding in late August. For an average over a twenty year period gives August 22nd as the start of this flow. Although the farmer may call it a weed, and even a few vile names, it continues to be recognized as an important honey plant by the beekeeper. Outlets for heartsease honey are rather limited due to its very rank flavor. Some people do not like this pronounced flavor; there are others who love it and prefer it to all other honey. The writer for one likes the flavor of heartsease.

Of the many asters, the frost flower is perhaps most widely spread, appearing each fall in mountain and lowland, up and down the rivers, and into far places, from Missouri to the eastern hills, and from the south up to Canada. When thoroughly ripe, aster honey is quite agreeable and makes good winter stores; but, when still thin and green, it catches many a colony unable to ripen it further. When this happens the colony suffers.

White boneset is not given enough due as a honey plant. It is especially abundant in the river valleys and often makes a surplus; always it adds much to the crop from other sources.—Photo by Lovell.

♦

There are areas in Illinois where this honey can be secured, may I say, as pure as Ivory soap (it is claimed to be 99.44% pure). Some of our own apiaries are located in such an area. Contrary to many assertions in reference to heatsease honey as dark, that from our apiaries is almost as light as from clover.

Farther south the Spanish needle blooms at about the same time as heartsease. These are followed by aster which is the latest of all our honey plants. Since considerable unripened aster may be in the hives in late fall, it has not met with much favor for winter stores.

Bluevine growing along the lower Wabash and the Ohio rivers is the source of one of our very finest honeys. The color is a very light amber and the flavor is excellent. The area producing this fine honey is rather small and this honey plant is unknown to many.

Basswood was once considered one of our major sources of honey in timbered areas of Illinois but a flow now from basswood is an exception.

Illinois.

—V—

Tennessee

Reports reaching me from beekeepers over the state tells that 1942 was a very sorry year for Tennessee, with only a small spring flow, if any. Bees were on their wings during late summer, however, and bitterweed seemed to spur them on to a medium force of bees to gather fall aster and goldenrod. All reports state plainly that 90 per cent of bees are in good order. Such would describe my own colonies. Most all hives are chock full of aster honey and young bees. Brood rearing tapered off early this month.

All beekeepers writing me stated that 1943 seems full of opportunity. The few package beemen in the state, Mr. Gladish, of Nashville, among them, thought that next spring would see a great number of Tennessee package bees going elsewhere. Others, honey producers only, Mr. Robert Lane, of Greenville, a member of this group, had ideas for increasing their number of colonies and all hoped for a banner honey crop. With 1942 like it was, I am sure 1943 will be lots better. The eastern section of the state, counting heavily on sourwood yield, was let down by rain coming at the wrong time. Other sources failed too.

Chunk and comb honey will be on equal basis with extracted honey in the state next year. I will be going in for more comb honey myself. The usual complaint of beekeepers may reach a "more drawn comb, please" loudness by next mid-May should the bees get too busy with next season's crop.

More crimson clover was needed this past fall than formerly by farmers over the state, due to A. A. A. payments stopping on sowing lespedeza and this should boost beekeeper's morale on the home front. There can never be too much clover growing near an apiary. Locust (black) trees set out by C. C. C.'s a few years back will be reaching points in their growth where their blooms will be helpful too.

Very few colonies have changed ownership in the state as few beekeepers want to sell. Next year will make us glad, we hope.

Carl M. Teasley.

♦

Among the fall flowers seemingly becoming less abundant as the years go by is Spanish needle, which once spread a golden blanket over the Mississippi and Illinois bottoms every year. True Spanish needle honey is now hard to obtain.

—V—

NEED INCREASED PRODUCTION GRASS AND LEGUME SEED

A need for increasing the production of grass and legume seed is apparent, according to Dr. O. S. Aamodt of the United States Department of Agriculture. This year the production of alfalfa seed was only about 60 per cent of the established goal, red clover 50 per cent, alsike clover 61 per cent, and sweet clover 70 per cent. The total 1942 production of alfalfa, red, alsike, and sweet clover seed was estimated at about 86 per cent of the 1941 total. This was in part due to the competition of other crops.

(Office of information, United States Department of Agriculture.)

LESSONS LEARNED FROM THE 1942 SEASON

By MILTON H. STRICKER

THIS year, except for a few scattered sections, the honeyflow of Northern New Jersey was a failure. This is not unusual in Jersey but there was an element of surprise connected with the condition. Besides the lack of surplus, beekeepers in the northern area found that bees were starving and dropping off the combs, or too weak to take advantage of a fall flow, if there happened to be one.

During the last twenty years there have been several seasons when there was little honey, but never before have bees failed to become properly organized for winter.

At first the beekeeper was inclined to pass it off, blaming the weather, but there is another reason, the fault lying elsewhere. In locating the reasons for this, it is best to go back into the beekeeping practices of the last twenty years.

For some years the beekeepers of New Jersey's northern counties have depended on a sumac-sweet clover flow beginning the last week of June or the first week of July. So dependable has this flow been that there is a popular expression, "As sure as the sumac yields." This year New Jersey experienced its driest spring and summer, getting very little rain until July. Of course, the beekeepers realized that there was not much moisture in the soil, but still dry years are supposedly favorable to large sweet clover yields. Even without rain the honey plants looked better than ever before.

Sweet clover swayed in the dry breeze and the sumac bobs burst forth in their green-gold finery. Bees began to work, doing well the first day. The second morning there was a thunder shower, followed by a hot and scorching afternoon sun—the sumac bobs were cooked and so was the honeyflow! Failure—the crop was lost—but still beekeepers did not worry; they knew their bees were in excellent shape and sure to be all right. Somehow it did not work out—beekeepers went on with their other work and paid no attention to the bees until September first. Then they were appalled. Bees were starving. What was the matter? What had the bees done or what had they not done?

But it was not the bees—the fault lay with the beekeeper and his practice of twenty years. It has been the usual practice to winter in two stories, place a third on in the spring with an excluder between the second and third. Then in June two more supers were placed on, but this was quite early for the supers because they expected no honey until July. Then, just as the honeyflow started, the beekeeper went out, smoked his queens down into the lower brood chamber and confined her to the lower nine or ten combs, saying, "There isn't any honey in August, so what is the use of having so many bees? They just eat the surplus."

In late August, when the honey was removed, the excluder was pulled and queen allowed access to the second story which by this time was clogged with honey. In cases where the North Jersey beekeeper expected a fall flow some empty combs were introduced into the second story, so the bees could crowd fall honey into the second story for the long winter to come.

Here was the answer—the field force was adequate and brought in enough honey for the colony's need. But due to the press of pollen, and bees below the excluder, the queen's laying was much curtailed. Much pollen was brought in and cells otherwise used by the queen were filled with the precious "bee-bread."

The queen excluder has sometimes been called a "honey excluder" but this time it worked as a pollen excluder, and since bees are loath to carry pollen through the excluder, it worked distinct harm to the colony morale. The crowding caused a reduced field force for the critical, or "starvation" period of mid-August. Here, in the time when there is usually very little honey, the colony was reduced to living on its meager surplus. Had the colony been overflowing with bees at this critical time, there would have been a great difference because beekeepers are finding that **in New Jersey there is always honey available to colonies at capacity strength!**

This unnatural crowding of queens has brought forth a group of "rebels"—beekeepers who shun the use of the queen excluder. The most conservative of the group only use the queen excluder twenty-one days before the honey is removed. The most rabid fans of this system allow the honey to force the queen down into the lower stories. They claim the elimination of the queen excluder allows development of the normal sphere of brood, rimmed with pollen and honey necessary to a populous colony.

The better breeding of queens makes the modern queen capable of placing brood in three stories in early summer and with the advent of July, the queen is forced down into the lower two. This seems to be a simple procedure, but there are various problems, such as the queen who believes in filling the center three frames with brood in all six stories. The "excluderless" beekeeper keeps eliminating this type and other undesirable types from his method of beekeeping. He claims the selection of stock able to meet his requirements is the most important phase of his work.

But the "proof of the pudding is in the eating," and a visit to the apiaries of these "rebel" beekeepers should tell us lots. Upon visiting these "excluderless" apiaries we find no evidence of starving bees, and, wonder of wonders, there is a super of honey on each.

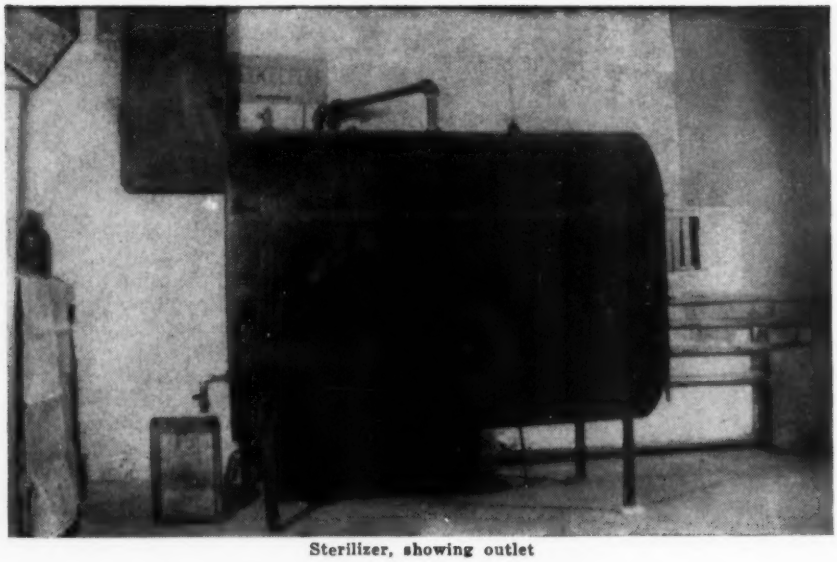
Here is the proof. These queens were allowed access to the third body early in the spring. There had been ample winter stores and bees built up rapidly. There was an extra large field force early in the season. This large field force was able to gather a surplus in early June, something that the smaller field forces of the confined colonies were unable to do.

But what about swarming? With this "barrel full of bees" one would expect swarms to issue in great number. Here is the surprise of all. Five standard bodies, sometimes more are used, queens are allowed to roam and swarming is naturally reduced to a minimum. These colonies were able to exist even though there was a total failure of the honeyflow in July and August. Still the colonies kept at capacity strength and were able to gather some honey when their weaker sisters were unable to obtain none. When the fall flow began, there was no need for colonies to build up for the flow—they were ready for it.

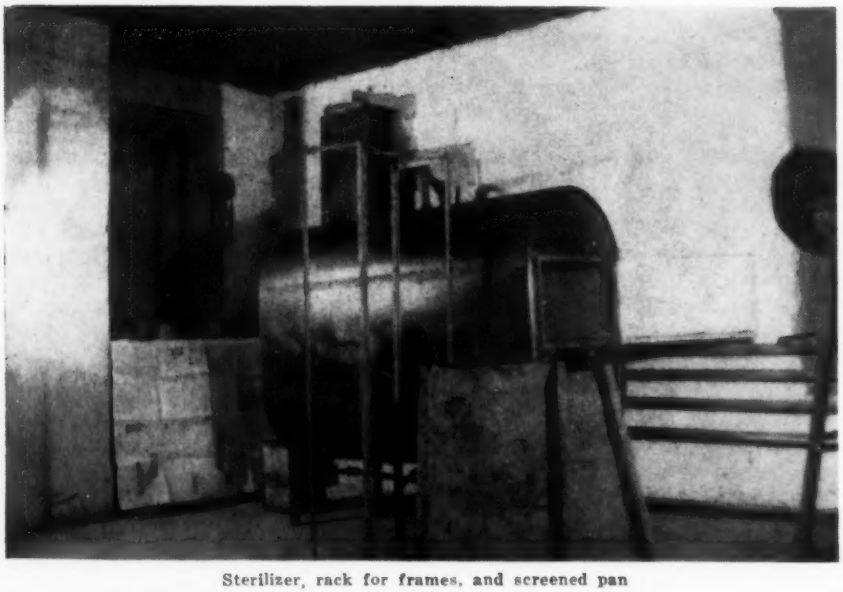
This led to the discovery that certain sections of North Jersey for years thought unreliable offered a better than average crop of fall honey.

This recalls the writer's experience of several years ago. I decided that since there was no honey in August (and therefore field bees at that time were superfluous) I would remove some surplus honey a new and fast way. The two top supers were lifted and the escape board placed over the colony; several layers of newspaper were placed over this and the supers

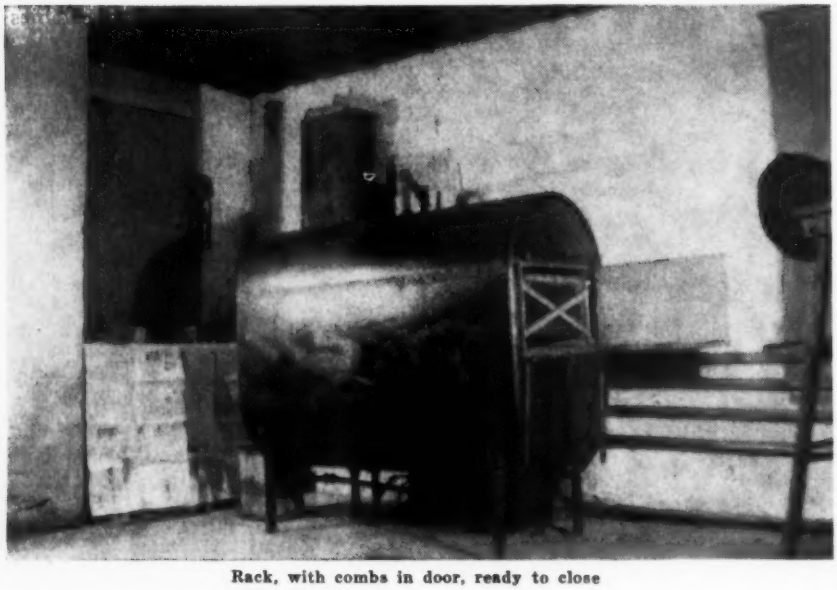
(Please turn to page 26)



Sterilizer, showing outlet



Sterilizer, rack for frames, and screened pan



Rack, with combs in door, ready to close

RENDERING BEESWAX

By H. L. Walton

More than forty years with bees, five years as deputy inspector and ten years with the fruit growers gives me some experiences of background for what I have to say.

With the experience I have had in killing bees with gas, piling up the diseased combs and burning them, I have come to the conclusion that the methods we are using to get rid of foulbrood are wrong. There are thousands of pounds of wax shipped into this country from abroad, and here tons of it go up in smoke every year.

Burning diseased combs in or near the apiary is wrong because the smell of the wax and combs attracts bees for miles around and if the material is not buried deep enough so dogs and skunks cannot reach it or dig it out, it is an excellent way to spread disease. A few shovels full of dirt will not do it. We have been fighting foulbrood forty years and it is my impression that there is just as much of it in the country as there ever was and that there always will be until the beekeepers teach themselves to control it.

Why kill your bees or burn equipment just because there is disease in the hive? The poultrymen don't burn their poultry houses if they have sick hens or chickens, and the farmer does not burn his farm with sick stock. Why do we do so with bees? Whether or not you care to do it, it is a fact that adult bees can be saved if they are put on clean new sheets of foundation in clean equipment. The old diseased combs and the frames can be run through a sterilizer, the wax thus saved, wires in frames tightened and the old honey disposed of. I am so satisfied with my own sterilizer I have no bees to burn or frames to destroy.

This sterilizer is made of a 275 gallon upright tank with a door large enough to take in a 10-frame hive body endways. There is a drip pan inside to catch all drips. The pan is eight inches deep at one end and tapers to nothing at the other. It is held up by a three-eighths inch rod on each side, two inches from the outside and four inches below the door. At the low point of the pan is a one-half inch short nipple with a thread for an elbow soldered to the pan. A short nipple goes out through the tank with a locknut, an elbow and valve to shut off the steam.

On each side of and level with the door are two angle irons one and one-fourth inch fastened at both ends for

the rack and pans to slide on. The pans are three inches deep with a flange on two sides with one fourth inch netting for bottoms soldered in. A loose piece of fine wire netting a little larger than the pans catch the old combs and the netting is easy to take out to clean.

The rack is made of one-half inch angle iron, wide enough and high enough to hold the frames upright. Steam comes in at the top with one and one fourth inch pipe with a T reduced to one half inch pipe with three outlets. A one inch return pipe with a check valve returns to the steam boiler to take care of the condensed steam.

The door has a packing around it and is closed tightly with three pieces of angle iron held solidly with thumb nuts. The inside is painted all over with aluminum paint to avoid rusting.

I have tested it for two years and it works. The slumgum goes into the boiler, is burned and that is the end of disease.

Massachusetts.

[Whether or not you save the bees is your problem. They can be saved easily now with carbolic acid. Drive the bees from the diseased equipment on to the clean equipment with an acid board. Then remove the equipment to be rendered. This is quick and easy with no robbing and no fuss. The question is are you perpetuating susceptible stock?—Ed.]

— V —

HONEY AND HONEYDEW HONEY

A reprint from the Journal of the Association of Official Agricultural Chemist gives a report on honey and honeydew honey by George P. Walton of the Agricultural Chemical Research Division of the Bureau of Chemistry and Engineering, United States Department of Agriculture.

This report discusses briefly differences between true honey and honey from honeydew, of particular interest to state and federal food control officials and chemists.

It states: "Honeydew honey differs from true honey in that it is not floral nectar honey. Most authorities agree, furthermore, that honey produced from the nectar of extra-floral nectaries (as well as from the nectar of floral nectaries) is true honey—thus restricting the term 'honeydew' to substances other than nectars. This suggests that honeydew honeys may be divided into two main groups, based upon the two chief sources from which honeydew is gathered by honeybees: (1) honeydew honey produced from the sweet excretions of insects (chiefly aphids) feeding on plants; (2) honeydew honey produced from manna or other sweet plant exudates, other than nectars.

"The Federal food and drug administrators have held that ' "Honeydew" honey usually exhibits plus rotation at 20°C., a high plus rotation of the inverted solution at 87° C., an ash content much greater than 0.25 per cent, and high non-sugar solids, and is usually characterized by a very dark color and a peculiar molasses-like flavor.'

"The dextrin content now appears to be a better criterion than the non-sugar solids content for the detection of honeydew honey."

The "plus rotation" referred to is the dextro-rotation imparted to a beam of polarized light when, for example, it is passed through a solution of honeydew-honey contained in a special optical tube under standard conditions, as shown in an optical instrument of the type known as a polariscope, a saccharimeter, or a polarimeter. Pure floral-nectar honey under similar conditions almost invariably rotates the beam of polarized light to the left (laevo-rotation.)

The remainder of the report is chiefly concerned with modification of, or refinements in, the determination of the dextrin content of honey. A suggested modification of the present official method for dextrin, which would avoid the undesirably high corrections for sugars carried down with the separated dextrin, proved unsatisfactory. Also, the effect of the presence of the sugar "melezitose," in a honeydew honey, upon the determination of its dextrin content is discussed, and certain chemical characteristics of melezitose are pointed out.

The average dextrine content of floral nectar honeys may be considered to be around 0.8 per cent, although apparently true honeys occasionally contain upwards of 1 per cent of dextrin. Honeydew honeys, on the other hand, commonly contain much higher percentages of this constituent; frequently ten times as much as average floral nectar honey. The dextrin is, therefore, of importance to the chemist in differentiating between true honeys and those produced from honeydew.

— V —

THINK OF THAT

We know of a man who takes rationing so seriously that instead of calling his wife "Sugar," he now calls her "Honey."

Alfred Pering,
Florida.

Steam boiler (by it cakes of salvage wax.)

Frames after sterilising. Why burn them?

Wax from the sterilizer, now worth forty-one cents a pound.

REMOVAL OF DISEASED BROOD IN COLONIES INFECTED WITH A. F. B.

By A. W. WOODROW and H. J. STATES, JR.

U. S. Department of Agriculture, Bureau of Entomology and Plant Quarantine

A previous report (2) concerning the behavior of bees toward brood remains resulting from American foulbrood infection showed that diseased brood was readily removed by the bees of all 14 colonies studied in 1937 and 1938. These colonies, representing 9 strains of bees, varied widely in their apparent susceptibility to the disease, as judged by the development of disease in them following inoculation and by the history of disease in their respective strains. The time required for removal of diseased brood varied appreciably in individual colonies, but this variation was more closely related to the quantity of diseased brood present than to their resistance. Cells in which brood became diseased were cleaned so effectively that, for the most part, new brood reared in them later developed without infection.

Considering that only 9 strains were studied, it seemed desirable to learn whether removal of diseased brood is also characteristic of other strains of bees. Accordingly the work was continued in 1939 (3) on 18 colonies representing 11 strains of bees, which included 4 of the strains studied in 1937 and 1938 and 7 new strains. Four strains had been selected and bred for resistance through from 1 to 4 generations. Three of these strains (A, C, and J) were Italian-Caucasian, and the fourth (H) was Carniolan. The remaining 7 strains were obtained from commercial queen breeders and, except for 1 (F) that had been found susceptible, their resistance had not been tested. Of these strains 6 (F, K, L, M, N, and O) were Italian and 1 (P) was Caucasian. None of the colonies had been under detailed observation previously, and 4 of them (A-186, C-197, C-205, and H-211) were new colonies with queens reared in 1939 from queens showing greatest resistance in 1938. Disease was initiated in all colonies by feeding them sugar sirup containing spores of **Bacillus larvae**, except that in 2 colonies disease appeared without feeding the infectious material.

Observations were made on the behavior of the bees toward diseased brood by noting the exact location of individual cells of infected brood as they appeared within the colonies, describing them, and making repeated examinations of the same cells at frequent intervals thereafter, as was described in the earlier report. The use of cells for brood rearing after the bees had removed the diseased material was observed in eight colonies, although in several of them only a few cells were so studied.

Time Required for Removal of Diseased Brood

Table 1 summarizes the occurrence of disease in the colonies and the activity of the bees in removing the diseased brood from the cells. As was the case in 1937 and 1938, the bees of all colonies removed the diseased material. The average time required for cleaning out individual cells of dead brood varied considerably, ranging from 2.3 to 19.4 days in the different colonies. Of all the cells under observation in all colonies in 1939, 64.1 percent were cleaned within 7 days, while in colonies with less than 100 diseased cells for the season 87.8 per cent were cleaned in that time. Cleaning required more time than in 1938, when 78.7 per cent of all diseased cells and 95 per cent in colonies with less than 100 diseased cells were cleaned in 7 days. As mentioned in the earlier report, the average time for cleaning is a rather rough measure of activity. In the more heavily diseased colonies the averages would have been higher if observations had included all diseased cells and covered the entire season.

As was true in 1937 and 1938, the time required for cleaning was more closely related to the number of diseased cells appearing than to the recovery of the colonies. The time required for cleaning in colonies that became heavily diseased (A-116, F-162, and N-120) increased as the season progressed. For example, the time for colony A-116 increased from 13.9 days in June to 28.7 days in August, paralleling the increase in disease. On the other hand, colonies with little

Table 1—Removal of diseased brood remains in colonies infected with American foulbrood, Laramie, Wyoming, 1939

	General Observations		Detailed observations					
Colony (1)	Total diseased cells (2)	Cells containing some remains at end of observations (2)	Cells closely observed	Cells cleaned out	Cells undisturbed	Average time required for cleaning	Cleaned-out cells again producing diseased brood	Cleaned-out cells producing healthy bees
	No.	No.	No.	No.	No.	Days	No.	No.
A-114	1000+	500+	138	137	0	4.2	1	47
A-116	2000+	1000+	177	115	11	19.4	9	51
A-142	38	0	38	38	0	2.3	--	--
A-186	1900+	500+	150	150	0	9.0	--	--
C-78	97	0	72	72	0	5.4	--	--
C-197	568	194	95	95	0	11.1	--	--
C-205	35	0	15	15	0	2.6	--	--
F-159	1000+	500+	77	73	0	13.2	0	1
F-162	2000+	1000+	182	131	0	17.6	4	30
H-66	2	0	2	2	0	2.5	--	--
H-211	645(3)	200+	104	101	0	5.5	--	--
J-91	13(3)	12	13	1	0	4.6	--	--
K-16	13	0	12	12	0	4.9	--	--
L-50	400+(3)	100+	89	70	0	13.3	4	5
M-42	1000+	500+	155	140	0	7.0	--	--
N-120	1000+	500+	307	303	0	5.6	7	84
O-106	182	17	168	161	0	9.9	0	14
P-123	419	8	396	396	0	3.0	1	61

(1) The letter preceding the number designates the strain of bees.

(2) Numbers followed by + sign were estimated; exact numbers were not determined, but colony became badly diseased before end of observations.

(3) Queen lost before end of observations.

(1) A contribution from the Bureau of Entomology and Plant Quarantine, U. S. Department of Agriculture, in cooperation with the Agricultural Experiment Stations of Arkansas, Iowa, Texas, Wisconsin, and Wyoming.

(2) Woodrow, A. W. 1941. Behavior of honeybees toward brood infected with American foulbrood. American Bee Jour. 81:363-366, illus.

(3) These observations, as well as those in 1937 and 1938, were made at Laramie, Wyoming.

diseased brood showed little change from month to month in the time required for cleaning. On the basis of amount of diseased brood present the bees of colony P-123 were more active in removal than those of other colonies. The total number of diseased cells in this colony was fairly large, but instead of becoming progressively greater, as is usually the case in the more heavily diseased colonies, the number appearing at each observation was fairly constant and the time for cleaning likewise remained almost constant. Only a few cells were found at the end of the season, but in 1940 the infection developed rapidly and the colony became badly diseased. Five colonies (A-142, C-78, C-205, H-66, and K-16) with from 2 to 97 diseased cells recovered from the disease by the end of the 1939 season, but none of more heavily diseased colonies recovered. In 1940 no disease was observed in colonies A-142, C-78, and C-205, and none was found in colony K-16 until late in September. Only a few observations were made on colony H-66 in 1940. Thus it is clear that the number of cells of diseased brood occurring in a colony determined, at least in part, the time required for cleaning them, and perhaps also the ability of the colony to recover from the disease. Other factors, such as populations and proportions of bees of different ages, also may have affected cleaning time as well as recovery.

Recurrence of Disease In Cleaned-Out Cells

New brood was observed in 8 colonies from which diseased brood had been removed. Since only 26 cells again produced diseased brood, whereas 293 produced healthy bees, the earlier conclusion that brood in cleaned-out cells is in little danger of infection from material remaining within them was substantiated. The fact that the recurrence in such cells was roughly proportional to the amount of diseased brood indicates that infection in cleaned-out cells depends on the degree to which the colony is contaminated rather than on the cell-cleaning efficiency of the bees.

Relative Recovery of Different Strains

In general, after primary infection develops, colonies either entirely recover from the disease or finally become so heavily infected that they die or must be destroyed. Thus in strain A one colony recovered and three became heavily diseased. Similarly, in strain C two colonies recovered and one failed to recover, and in strain H one recovered and one did not. These variations in disease development among colonies within strains are similar to those found in 1937 and 1938. The colonies of the commercial strains removed diseased brood about as readily as those bred for resistance, although only one recovered from its infection. A larger proportion of the resistant-strain colonies recovered from the disease, but those that failed to recover became diseased to about the same extent as those of the commercial strains, including the susceptible strain F. There was no evidence that one race is decidedly more active than another in removing diseased brood, although this possibility may have been obscured by variations among colonies due to other factors.

Relation of Brood Removal to Colony Resistance

Since the bees of all 32 colonies, representing 16 strains of the Italian, Caucasian, and Carniolan races studied in 1937, 1938, and 1939, removed diseased brood remains, brood removal seems to be a rather common behavior characteristic of honeybees. As these colonies varied widely in their ability to overcome the disease, it is evident that resistance does not depend entirely on the bees' propensity for removing diseased brood from the comb. Such removal is only one step in the complex chain of activities within the colony which are included in its response to the disease. In the three years no colony in which more than 100 cells of diseased brood were found recovered from the disease. The exact number beyond which there is no recovery cannot be established, although light infections sometimes are overcome when heavy ones are not. The character or size of the inoculating dose, however, does not alone determine the extent either of the initial infection or of the final disease development, since equal inoculations produce unequal infections in different colonies. This is not due to differences in resistance in larvae but to the fact that transmission of the infectious material to the brood at the proper time in larval life (4) is dependent on the nurse bees, and consequently more or less on chance. The effective cleaning of cells containing diseased brood demonstrates that the spread following primary infection depends on the extent to which the colony becomes contaminated with it, and not on how completely the infectious material is removed from the cells.

The variations in time required for removing diseased brood in certain colonies due to differences in the amount present indicate that speed of removal has little effect on the resistance of the colony. The speed of removal demonstrates the industry of the colony, but there is no evidence that rapid removal is more effective than slower removal. On the other hand, some more recent observations indicate that the time of removal in relation to the organisms within the infected larva may be extremely important. In some resistant colonies infected brood was removed by the bees before its presence could be detected by ordinary inspection methods. No diseased brood was allowed to remain until it reached the familiar melting-down, light-brown stage which ordinarily is the first evidence of infection. In view of the work of Tarr,(5) who was unable to cause infection with cultures of **Bacillus larvae** in the rod stage by spraying them over developing brood (whereas with spores of the organism infection was readily accomplished), it seems likely that the diseased larvae in these resistant colonies were removed before the organism had reached the stage where they were capable of infecting other larvae. The extent to which removal activities of this type are characteristic of highly resistant colonies is not known. The detailed observations on removal of dead brood described in the present paper were made only on readily recognizable and infectious stages of disease.

Summary

The behavior of bees toward brood infected with American foulbrood was observed in 18 colonies representing 11 resistant and nonresistant strains of bees. The bees of all colonies removed diseased remains from the cells of the comb in which brood had died. The average time required for removing the diseased material from individual cells ranged from 2.3 to 19.4 days. Among all colonies 64.1 per cent of all cells were cleaned within 7 days; in colonies with less than 100 diseased cells for the season 87.8 per cent were cleaned in this time. The time required for cleaning individual cells and the ability of colonies to recover from the disease depended on the number of cells of diseased brood present. Four colonies of strains selected for resistance and one colony of a commercial strain recovered from the disease, but no heavily diseased colony recovered. In colonies failing to recover there was no essential difference in the extent of disease development between colonies of resistant and nonresistant strains.

These observations confirm those

(4) Woodrow, A. W., 1941. Susceptibility of honeybee larvae to American foulbrood. Gleanings Bee Culture. 69: 148-151, 190.

(5) Tarr, H. L. A., 1937. Studies on American foul brood of bees. I. The relative pathogenicity of vegetative cells and endospores of **Bacillus larvae** for the brood of the bee. Ann. Appl. Biol. 24: 377-384.

(Please turn to page 26)

THIS AND THAT FROM HERE AND THERE

OVERHAULING EQUIPMENT

The indications are that there will be some shortage of bee supplies in 1943. Our ability to increase the production of honey will depend on how well we utilize the equipment we own.

Now and not next spring is the time to overhaul broken hives and parts, supers and to repair frames. A work bench in the cellar near the furnace is a fine place for this. The bench need not be elaborate. A large dry goods box or a table will serve if nothing better is available.

Old hives will give many years of usefulness if they are thoroughly scraped, brushed with a wire brush and given two or three coats of fresh paint. It was formerly thought that painting inside the hives prevented acceptance by the bees. I have never found this to have any ill effect. I have given the frames even two coats of paint. It may not be advisable to hive swarms in such hives before strong colonies have used them and perhaps before foundation has been fully drawn out first. I generally give a swarm one or two combs of brood from another colony to start them off and prevent absconding, in any event.

The frames should be thoroughly scraped with a strong sharp knife blade. A mere once-over with a hive tool is not enough. It is surprising how soon an old frame becomes new under the knife.

A few nails applied where necessary and new frame wire and they are ready for the foundation when needed. If one waits until spring when other work is pressing, the chances are the old frames will stay in the pile for a long time unused and neglected, adding nothing to the production of honey.

Cale wrote a fine article in October. If you didn't read it, you have missed something. The paragraph "Foulbrood colonies, of course, are killed as found, the wax rendered up at once and the bees burned," is a brief definite way of handling the disease situation.

I tried six queens of the resistant strain from the Iowa Association this spring, hived on wet combs taken from the supers of colonies that had died during the winter from disease. Five of them built into healthy colonies and only one failed and had to be destroyed.

I have found the hives of infected colonies thoroughly scraped inside and out and painted both inside and out with three coats of good paint are perfectly safe to use. I have also found that the frames from these colonies if thoroughly scraped are also safe to use although it is perhaps best to expose them to good weathering outside after they have been scraped until they fairly shine. The rain, sun and frost will clean them thoroughly in a few weeks. They are then taken inside and sand papered.

If you are not willing to take the time to do a clean job, by all means burn all diseased equipment, for carelesssness will spread disease most certainly. You may have a strain of bees resistant to American foulbrood and leave diseased material exposed to them, but the chances are you will not only infect other colonies of your own, but those of your neighbor.

I find the best way to get things done is to do it at once, so if you have not yet started to clean up your old used equipment, read this, put on your old clothes and get busy. Take five frames at a time and after they are finished, put five more on the bench where they will be handy when you have a few minutes to spare.

Beekeeping is an important war work and the war will not be won without effort.

R. E. Newell,
Massachusetts.

—v—

A SIXTY-YEAR EXPERIENCE

After sixty years with bees off and on, mostly on, I have learned something that cannot be rubbed out. I have always operated in outapiaries where one must figure on swarming. I have read where beekeepers with only a few colonies think they do wonders preventing swarms. When outapiaries are in the picture, however, it will be found that no two seasons are ever alike. Then the control of swarming is complicated. Here in south Texas the humidity is great, which adds to our trouble.

I always use full sheets of foundation, never allow bees to cluster outside, make a limited amount of increase, requeen frequently, judge queens mostly by their egg laying, produce both bulk comb and extracted, with the accent on extracted.

In 1942 I produced an exceptional crop. Some of the extracted honey would make water look dark and comb honey would make snow look off color, from huajillo, the best I ever saw. Some colonies stored as high as 30 pounds per day. I have one yard of eighty colonies that has not swarmed in two years so far as I know. I have passed this yard as much as six times a week, and have a man that lives right at the place to watch. Of course my colonies are requeened with queens from as good a breeder as I can find.

No matter in how good condition your bees are nor how good the queens may be, of course you will not get a bumper crop without a good honeyflow. Here in the sunny South, we do not get the big yields the beekeepers do in the North.

M. B. Hinton,
Texas.

—v—

NEVADA EXPECTS INCREASE

Nevada hopes for an increase of 150 per cent in beekeeping in the next few years, according to the state apiary commission. Many new beekeepers are expected to begin on a commercial basis because of the wartime demands for honey and wax. The commission warns, however, against borrowing money to buy bees at high prices since the active demand for honey will perhaps only last for the duration of the war. Beekeepers in debt should pay off a heavy indebtedness which they cannot do on three or four cent honey.

Beekeepers seeking locations should turn to eastern Nevada, where there is much desirable bee pasture. Sweet clover has become established over a great portion of that section. Every effort should be made to prevent overcrowding of the western counties

where most of the state's bees are now found.

The poorest honey production in the history of the state reported for 1941 was only 300,000 pounds compared with a normal of 750,000 pounds. Lyon County was the state's leading place for bees with 3,748 colonies in 1941. Churchill County was second and Washoe third. The number of colonies in the state increased from 11,097 in 1940 to 11,434 in 1941.

In addition to poor weather conditions during the biennium, the report called attention to an increased infestation of alfalfa weevil, which, in some districts, damaged crops so all blossoms on the first crop of alfalfa were destroyed. Because the weevil does not damage clovers, it is urged that beekeepers place their yards where such forage is available.

Glen Perrins,
Utah.

—v—

LEARN HOW GOOD HONEY CAN BE

Dr. A. L. Hunt, of Los Angeles, California, sends a copy of The Christian Science Monitor, with an article by Ernest Douglas, carrying the above title. We quote from it. (Issue Friday, October 30.)

"In this year of sugar rationing, many Arizonians are learning with surprise what good eating honey can be. They are also learning that honey is produced, in this desert country, from strange plants that the uninitiated would never suspect to be sources of delightfully flavored sweetness.

"There is the state flower, the blossom of the giant saguaro cactus. These lovely cream and white blossoms burst forth in spring, at the crowns of the saguaro trunks and arms, 15 to 35 feet above the ground. From them exude extraordinary quantities of nectar, especially on warm nights. Through the days bees swarm about them. Anyone who has had the rare good fortune to obtain pure saguaro honey has had an epicurean experience he will never forget.

"Most famous and most abundant of Arizona honeys is mesquite. For long weeks in spring and summer, when winter rains have been copious, the mesquites are ablaze with yellow blossoms. Since the mesquite is the commonest of all Arizona trees, it is the mainstay of apiarists. With every other condition favorable, their season is a failure if there is not a 'good mesquite bloom.'

"A golden amber in color, mesquite has a mild flavor and delicate aroma that makes it a universal favorite. The trouble is that it is liked too well. Every bottler is likely to label his honey as 'genuine mesquite,' even if it is an inferior blend. No one who has ever eaten the real article can be deceived; but newcomers sometimes reach the conclusion that the reputation of mesquite honey is undeserved.

"Even better than mesquite, in the opinion of connoisseurs, is catclaw honey. The catclaw is a close relative of the mesquite, but smaller and not such a prolific bloomer. Its honey tastes much the same, but is so light in color as to be almost white and so is very pleasing to the eye. Both kinds darken with age, but catclaw honey never becomes darker than mesquite just from the hive.....

....."Among domestic plants, the only ones of real importance to beekeepers are citrus trees, alfalfa, and cotton. Orange or grapefruit honey vies with mesquite for quality, but some object that it is so sweet as to be cloying. Alfalfa honey is excellent and so is that which the bees gather from the under side of cotton leaves; they ignore the flowers. Usually, though, cotton and alfalfa honey are so mixed with inferior kinds that they are used mainly for cooking."

—v—

HAVE YOU HAD AN EXPERIENCE LIKE THIS

Howard J. Rock, of Wisconsin, writes: "I am intrigued by the antics of snakes around beehive entrances. This summer my apiary at home was infested with them. I have seen them many times around the entrances apparently eating bees. Several years ago I found a large bull snake near a very cross Italian colony. The snake had been stung to death.

"Have any others noticed anything of this sort? Do you think snakes thrive on a diet of bees like skunks and so constitute a menace? This season I have lost quite a few virgins on their mating flight. I wonder if snakes could be the culprits? My home yard is located next to a creek."

Answering him, we reported, that we also have seen snakes in bee yards, black snakes, blue racers, and a small snake with an orange color underneath and an orange ring around the back of the head. We do not know what the latter is. Perhaps someone can tell us.

We have not seen the snakes eating bees, but they may eat the dead ones. We have never seen them killing bees. Perhaps they do. They might pick up virgins. We have lost virgins from birds, frequently. Can anyone else contribute to this interesting question?

DISEASE FROM THE POTATO CELLAR

The potato cellars in Colorado and elsewhere used for wintering bees are said to become harbors for American foulbrood from infected material left in the cellars. We wonder if that is really true?

We are inclined to think that to blame the cellars for it is merely an alibi for poor beekeeping. Either the beekeeper spreads disease in his apiary through carelessness or he is careless when he leaves infected material in the cellars. Either way, it is up to the beekeeper to do good beekeeping.

I care not what the locality is or how badly bees are infected with disease, a good beekeeper will not have many cases in his apiaries. And colonies which become infected from outside are few compared with what the owner spreads among his own bees. A beekeeper ought to be ashamed to have any cases of long standing. Nobody else is as much to blame as he is for severe outbreaks of American foulbrood. I know one outfit of 3,000 colonies which did not have a single case of disease this season and only one last year.

It is much the same with European foulbrood although the case is different because it spreads so rapidly. Bees in proper condition and destruction of the first few spring cases are all that are needed to keep clear of it.

E. L. Sechrist,
California.

—v—

DON'T GIVE UP THE CAPPING MELTER

If those who produce the whitest white honey do not wish to use a capping melter, it is all right by me (Dr. Dyce, page 439). But why should not those who produce slightly darker honey get rid of some of their troubles by using a good capping melter? I know from experience, the grand feeling one has when he goes to bed at night after a day's extracting, with everything cleaned up, and no mess left over for a more convenient season. With most of us, that convenient season never comes, so sometime when we don't want to do it, we have to handle over again quantities of sticky cappings. Also we spoil or waste a lot of perfectly good honey that the capping melter lets us put on the market as soon as it is extracted. Don't give up the capping melter.

E. L. Sechrist.
California.

IS SOME HONEY IRRITATING?

When I was a boy on a farm, nearly every year we sowed buckwheat for orchard cover crop and often fields of it in the open. When the acreage was not much, the buckwheat was often threshed out with flails on the barn floor, a good rainy day job.

In the early days, we raised some hogs and I recall when the buckwheat straw was pushed out in the barnyard in the back where the hogs ran, when they got into the straw, their skin got red and father called it "buckwheat itch"—irritation. In other words buckwheat straw was not so good for the hogs.

There may be a connection with this, and the frequent claim that some honey is irritating to the skin, especially when used for shaving. I expect there may be plants that produce honey that would be more or less irritating to delicate skins.

A good project for some chemist working for a degree would be to determine the different chemical content of honey and the use of different kinds of honey for different purposes.

A. G. Woodman,
Michigan.

—v—

CRYSTALLIZED HONEY

Keep your eye on the increasing sales of finely crystallized honey and prepare to cash in on it. England demands it. Canada prefers it. We, in the United States, foolishly educated people, demand liquid honey and now have our troubles. We might as well own up and start over.

E. L. Sechrist,
California.

—v—

A SHIPPING TAG FOR PACKAGE

Since the sugar shortage, a number of beginners have called on me to help them hive packages. I have frequently found the label giving directions pasted anywhere on the cages, top, sides and ends, everywhere except the bottom. When I get the packages I find them lying in any position. When I take the express agent to task for it, he says no one ever pays any attention to it. I have asked if the direction tag had been read completely through and they admit seldom having seen it, or having attached any importance to it.

It seems to me that if the shipper and express company would get out a shipping tag with all the instructions necessary and place it right in the middle with the address of the purchaser so the handler's eyes will fall right on it, it would help some. Place it so the handler cannot help but see it. Let the consignee's name and address be small enough so that when it is to be read, one has to get close, so will not miss the notice.

Alfred H. Pering,

—v—

CATCHING STRAY SWARMS

The demand for beeswax and for honey has made the catching of stray swarms more desirable then ever. I have found that my attempts to get swarms located in my hives and not leave them, the more successful by facing my colonies away from high trees and towards lower ones, and also in placing decoy hives out to catch swarms. I find it is best to put them deep among the orange tree limbs, which are so common to this section. Both of these things have helped considerably.

Alfred H. Pering,
Florida.

—v—

MILKWEED POD HARVEST

A United Press item comments on the first commercial harvest of milkweed pods this year at Petoskey, Michigan. The floss of the pods was used to replace kapok and to line aviator's jackets. This is important to beekeepers since milkweed is a honey plant. A large acreage devoted to this purpose would be of distinct benefit to honey production.

Emil H. Weidenbach,
Illinois.

—v—

REMOVAL OF DISEASED BROOD IN COLONIES INFECTED WITH A.F.B.

(Continued from page 23)

on 14 colonies previously reported. Since the bees of all 32 colonies studied, representing 16 strains of 3 races, removed diseased brood from the cells, it is likely that this is a common behavior characteristic of honeybees. Furthermore, since diseased brood was removed regardless of whether the colonies recovered from the disease, it is evident that colony resistance to American foulbrood does not depend entirely on this behavior characteristic. Light infections sometimes are overcome whereas heavy ones are not, but the extent of infection is not determined entirely by the inoculating dose. The spread of disease within colonies depends rather on the extent to which general contamination of the colony is produced during disease brood removal.

—v—

REDUCING ENTRANCES

Here is a tip for closing down entrances in the fall: Use a three inch board, notch out the center of the bottom for three inches, tack on a piece of hail screen over the entrance hole and this gives the bees no difficulty in getting in and out, and practically eliminates robbing or mice.

Otis Steen,
Minnesota.

—v—

LESSONS LEARNED FROM 1942 SEASON

(Continued from page 19)

set upon the newspapers. Just before putting on the cover, a dash of cyanogas was introduced. I went into the next colonies and did likewise. After treating twelve colonies in this manner, I went back to the first and began to load the honey now void of live bees. The honey was loaded easily and simply. A good system, fast and efficient, I thought.

But somehow when bees were ready for winter these twelve colonies were poor in comparison with the others. Another example of how important the colony morale. These bees, thought to be worthless, had a definite value in maintaining balance and were much more important than they appeared.

Now let us take a look at the valuable lessons learned this year of 1942. Lessons learned the hard way, but once learned never to be forgotten.

The beekeeper's early manipulation of the colony often destroys the morale of the colony for the rest of the season, curtailing both normal brood rearing and honey production.

In New Jersey colonies always find some honey available when at capacity strength.

More has been learned about swarming, the bugaboo of New Jersey. Observing both Caucasians and Italians operated without excluders show definite results.

Though production of honey in New Jersey will be less than fifty per cent of normal and though the experience gained cannot be valued in actual dollars and cents, this same experience has made the year of 1942 another interesting year for the beekeeper.

———

New Jersey.

The well-known Lake Shore honeycomb package now to be distributed by Heinz Company.

HEINZ ADDS HONEY TO FAMOUS "57"

The announcement of the H. J. Heinz Company that it has begun the packing and national distribution of honey is one of the most important happenings in honey marketing that beekeepers have had in a long time. Considering the fact that "Heinz 57 Varieties" are so well advertised, have such a high reputation for quality, and are nationally distributed through more than 20,000 retail stores, the honey industry may take courage for the future. The Heinz policy of selling its products on a quality basis rather than on price is bound to have a vital effect.

There have been a few brands of honey advertised nationally, but no large food packer covering the entire country with its products has before included honey in its regular line. With the Heinz Company added to the list of packers who know the ins and outs of honey, there is good prospect that the price wars which have hounded the honey markets so relentlessly in past years will come to an end.

The Heinz people find that much ground work on honey has already been done. The American Honey Institute by excellent planning and careful accumulation of information about honey in the home has become a vital factor in our industry.

Writing about their new venture,

Walter Straub will still figure largely in the new Heinz venture.

J. G. Bennett, Purchasing Agent of the company, in Pittsburgh, says, "Many legions of bees were signed up to work for the Heinz Company through an agreement made with W. F. Straub & Company, Chicago. Under the arrangements recently announced by H. J. Heinz II, president, H. J. Heinz Company will pack and distribute Straub and Company's Lake Shore Honey.

"The Straub Company will continue to operate its Lake Shore Apiaries, consisting of 15,000 colonies, on the Minnesota-North Dakota border. The honey produced will be distributed by the Heinz Company. In addition, the Straub Company operates six central receiving stations where honey is obtained from beekeepers and farmers in thirteen states. This will also be handled by the new concern."

"The Heinz Company is installing honey packing facilities at Muscatine, Iowa, and its nation-wide system of warehouses and sales branches will handle the product. Adding it to the famous "57" should enable us to expand the sale and offer a constant and improving market for high grade honey. As the business grows, we will be prepared to pack honey at any or all of our many branches and factories. We have produce receiving stations located in the best producing territories of the country and there is practically no limit to the tonnage that we may handle if consumers accept our position in the market."

— V —

BEES TAKE OVER WEATHER REPORT

F. A. Boedeker in Chicago sends us a clipping from the Wausau Wisconsin Record Herald about an Associated Press item concerning bees, in Monmouth, Illinois that took over the weather reporter's job for one day in August.

" On August 21 for the first time in fifty years, the Review Atlas went to press without the weather report, because a swarm of bees had taken possession of W. E. Mac Dill's instrument box. His noon report was: "Maximum yesterday, 92; Minimum to noon today—bees. Noon temperature—more bees."

— V —

THE TWO-QUEEN SYSTEM

Much is yet to be learned about using the offspring of two queens to give a colony with sufficient population to get a maximum crop. If the beekeeper has locations where it is hard to get a big population, he ought to work out a plan of using two queens that suits his conditions. No rule can be made. Locations vary so greatly that management must vary the same way.

E. L. Sechrist,
California.

DONNIE MARIE

This little lady is Donnie Marie Pease, one month old November 5, the daughter of Private Laurence Pease, 350th F. G. T. S., Tyndall Field, Panama City, Florida. Larry will be remembered as the son of Harry A. Pease, formerly associated with the Dadant apiaries in Glenwood, Iowa, and now keeping bees for himself at Emmons, Minnesota.

Larry has been in the army two years, and says, "I didn't think I could forget so much about bees in two years. Maybe I didn't know much anyway. You are probably wondering what has become of me. Well, I am all army. Had one year in the infantry, then I had a chance at Aviation Cadet, but because of persistent air sickness did not make a pilot. I hope to become a ground officer. At present I am a radio operator on a B-26. Funny I can fly in them and it really is a nice job.

"Have been married for nearly a year. We have a daughter too. Of course she is a honey baby. What else can you expect? I will wean her on a bottle of good clover honey. "Here I am in the tupelo section, but haven't seen a bee now tasted any honey. I certainly would like to get back with the bees."

CAPTIVES

This picture shows bees captured by foxtail grown at the entrance of colonies in one of our yards. There were two or three hundred bees captured in flight trying to get through a heavy growth of this grass, not far distant from the entrance. Apparently the bees came in loaded with nectar and were unable to fly above the obstruction.

Of course the obvious remedy is not to allow the grass to grow there. This is an unusual thing, however, and is one of the many incidental ways in which bees lose their lives.

MELL PRITCHARD

As we go to press, we learn of the death of Melvin T. Pritchard on December 1, probably one of the greatest authorities on queen rearing. Few men had the knowledge he had of all animate life, animals, birds, insects, worms and what not. For this, he went to the greatest book of all, Nature.

Pritchard did much to improve the Doolittle system of queen rearing. He served the A. I. Root Company of Medina, Ohio for five generations, beginning work for Homer H. Root, father of A. I. Root, as a chore boy. Later he worked for A. I. Root in his gardens for the magnificent sum of 6 cents an hour.

Later he began to rear queens. He continued to do so until about a year ago when he retired. He said he found that the old body would not respond like it used to. He was seventy-six years old when he passed away. He was queen breeder for the Roots for forty-two years in which time he, himself, reared at least 150,000 queens.

CANADA

To many this picture of Niagara Falls represents the union that exists between the United States and Canada; across a far flung boundary from shore to shore, the citizens of both countries mingle together with good will, friendship and common purpose. Now, in a war of freedom and right against slavery and might, the two countries are cemented by bonds which will never fall apart.

Our beekeeping problems are the same as those in Canada. We have approached their solution in a similar way.

In many ways, Canada leads the industry on the North American continent, particularly in the matter of cooperative marketing which now spreads across the entire Dominion and does much to keep Canadian markets at a higher level than that which we have enjoyed in the United States.

Fraternity in common problems and in common gatherings has been an inspiration to American beekeepers many times in the past few years. We can never forget the showmanship evidenced by Dominion Apiarist C. B. Gooderham when, in an international conference in the South, he carried off the honors for having the most representatives present at the meeting and for having traveled the greatest total mileage. No delegation in the States could equal our doughty friend from Ottawa. In he marched at the head of his representative group, like soldiers on parade. And if there ever were proud people who brought a lusty cheer from all those present, it was our Canadian friends on this occasion.

DEPARTMENTS

View of American and Canadian Falls From Hennepin Point—Photo from Chamber of Commerce, Niagara Falls.

RECIPES

NOW that the holidays are over and the household has settled back to normal activities, you will once again want to fill your spare moments baking something for that favorite soldier boy or sailor who by this time has probably emptied his Christmas box. If the problem of packing your cake or cookies has bothered you we can tell you how that problem can be solved. Simply send ten cents to Box 41, Battle Creek, Michigan, and ask for the Swans Down-Calumet Mailing Box. You will receive this box with complete step by step directions and illustrations on how to pack your cake and cookies so they will arrive in perfect condition.

If you haven't already tried the Honey Nut Cake with Honey Butter Frosting given on page 514 of our December Journal, you should do so. This cake was featured five times a week by Kate Smith on her noontime program, "Kate Smith Speaks," as well as appearing in colored ads in a number of the December magazines.

Honey Drop Cookies

3 cups sifted flour (about)
3 teaspoons baking powder
¼ teaspoon salt
¼ teaspoon cinnamon
¼ cup chopped nut meats
½ cup chopped citron
½ cup shortening
½ cup sugar
1 cup honey
2 egg yolks, well beaten
1 teaspoon vanilla

Mix and sift 3 cups flour, baking powder, salt and cinnamon; stir in nuts and citron. Cream shortening; beat in sugar and honey, then egg yolks and vanilla; gradually stir in flour-nut-fruit-mixture. Bake sample cooky to determine effect of honey on mixture. Some honey causes more spreading than others; add more flour if necessary. Drop batter from teaspoon on greased baking sheet and bake in moderately hot oven (375°F.) about 10 minutes.

Approximate yield: 7½ dozen cookies.

Kellogg Co.

Honey Krispies

1/3 cup shortening
½ cup honey
2 eggs
½ cup sour cream
1¾ cups flour
1 teaspoon baking powder
¼ teaspoon salt
½ teaspoon soda
½ cup chopped nut meats
½ cup chopped dates
½ teaspoon nutmeg or
1 teaspoon vanilla extract
1 cup oven popped rice

Blend shortening and honey. Add well-beaten eggs and cream. Sift flour with baking powder, salt and soda; add to first mixture. Stir in nut meats, dates, flavoring and oven popped rice. Drop from a dessert spoon onto lightly greased baking sheet and bake in moderate oven (375° F.) about 20 minutes.

Yield: 2 dozen cookies (4 inches in diameter).

— V —

Ship Ahoy Cookies

½ cup Spry
1 teaspoon salt
1 teaspoon vanilla
½ cup honey
½ cup sugar
1 egg, unbeaten
2/3 cup sifted flour
½ teaspoon baking powder
1 cup rolled oats
1 cup coconut
½ cup nuts, chopped

Blend Spry, salt, and vanilla. Add honey and sugar and cream well. Add egg and beat well. Sift flour with baking powder and add to creamed mixture, blending well. Add oats, coconut and nuts and mix well. Pour batter into 8x8 inch Spry coated pan. Bake in moderate oven (350° F.) 45 to 50 minutes. Cool and cut in bars. Makes 18.

Lever Brothers Company.

— V —

Honey Victory Cake

½ cup butter or margarine
1 cup honey
½ cup milk
2 eggs (unbeaten if using electric mixer)
2¼ cups cake flour (sifted)
2¼ tsps. baking powder
¼ tsp. salt
1 tsp. grated orange rind
1½ tsp. vanilla

Bake in two eight inch layer cake pans in a moderate oven of 350 degrees for 30 min.

— V —

Camp Bars

1 cup honey
3 eggs, well beaten
1 teaspoon baking powder
1 1/3 cups flour
1 cup chopped nuts
1 pound chopped dates
1 teaspoon vanilla

Mix honey and well beaten eggs together. Add baking powder and flour sifted together, then the chopped nuts and dates and flavoring. Bake in long flat pan. Mixture should be ¼ inch deep before baking. Cut in strips ½ inch to 1 inch wide and 3 inches long. Before serving roll in powdered sugar. Bake in moderate oven (250° F.) for 20 to 25 minutes. Yield: about 30 bars.

Kroger Grocery & Baking Co.

— V —

Honey Pumpkin Pie

1 small can pumpkin
1 cup honey
2 eggs
1 tsp. cinnamon
1 tsp. ginger
½ tsp. salt
1 can evaporated milk

Bake as any other pumpkin pie.

AMERICAN HONEY INSTITUTE

May 1943 hold Health, Happiness and Honey for all!

— V —

The Annual Directory, "Who's Who in the American Honey Institute for 1942" is being made up. Every one who desires to have his name listed should see that his contribution is in the office by January 15. A copy of the Directory will be mailed to those whose names are listed.

— V —

As the news notes are being written a letter arrives from the State of California with over five hundred dollars in cash and pledges for the American Honey Institute. This money was contributed at a meeting held at Pomona. We heartily thank you!

— V —

INSTITUTE INKLINGS has been mailed to you. If you did not receive a copy let us know for you will want to read the articles by Mrs. Henry Morgenthau, Jr., Martha Logan (Swift and Company), Harold Clay (up-to-the-minute news from Washington), Lewis W. Parks, Dr. Harriet Morgan Fyler, Dr. O. W. Parks, Dr. R. L. Parker, G. P. Walton, Mrs. Aline Hazard, Mrs. E. H. Bremer, Roy A. Grout, and others.

— V —

In order to send a release by franked mail, it is necessary that each piece of mail contain identical inclosures. In the event that you received a pledge card and have already sent your pledge to the Institute, you will understand why it is inclosed.

— V —

The Honey Egg Nog for holiday entertaining has been receiving a great deal of publicity throughout the country. It is good at any time and is liked by children for dessert.

— V —

We are informed that Broiled Honey Cinnamon Grapefruit is a favorite dish for a group of Waves.

Stations WHA and WLBL tell us that hundreds of requests are coming in each day for copies of the broadcast given in December over these stations on Honey Fruits and Nuts as Christmas Candy and Puddings for Gala Days by the Director of the American Honey Institute.

— V —

Watch the December magazines for the colorful ad with the Honey Nut Cake recipe. This recipe is also being broadcast on a national hookup each day on Kate Smith's noontime program.

— V —

Following are some extracts from letters received in the Institute office:

"Thank you so much for the booklets. The Home Economics classes are using them and like them very much."

—from a librarian, Kentucky.

" 'Old Favorite Honey Recipes' is most attractive and so thoroughly usable and sensible that I am anxious to enclose some with Christmas Gifts."

—from Washington.

"I would be much obliged if you could post me another copy of 'Old Favorite Honey Recipes'. I have used it to give one recipe each week for this past year to a beekeeping class, before the lecture, a feature much appreciated by the lady students."

—from Birmingham, England.

— V —

WISCONSIN DISEASE STATISTICS

More apiaries in Wisconsin were inspected this year than in 1941, but a smaller amount of disease was discovered. Inspection of 58,298 colonies in 5,404 apiaries showed only 1,482 infected with American foulbrood. Last year, 46,878 colonies in 3,463 apiaries showed 1,781 diseased colonies.

Work was carried on this year in all but fourteen counties of the state. Many new areas are in plans for next year.

H. C. Brunner,
Wisconsin.

Meetings & Events

Our Wartime Conference Opens in Chicago, January 26, 1943 at Hotel Morrison

At least two days and perhaps three days are to be dedicated to the Honey Producing Industry to map out our program for the duration.

With the nation in the midst of a mighty war, our industry desires to put forth unlimited effort to help in winning of this war. It is therefore imperative that representatives from each branch of the industry assemble to correlate their activities. The immensity of the job facing the industry is staggering. Only by pooled resources can we rise to the nation's needs.

At this meeting we will deliberate and make significant plans for the duration and post war days ahead.

We shall go forth from this meeting with a new perspective and shall be better prepared to serve our country during the war and in the peace that we trust is soon to come.

I am appointing a committee to be called, "The Honey Industry Cooperation For Our War Efforts." It is hoped that each member on this committee will make a study of the branch of the industry that he represents and bring that information to the Chicago Conference, where it can be pooled with the other branches of the industry, so that in the final analysis, we will all be pulling the same way and pulling together.

The committee members are as follows:

James Hambleton, Beltsville, Maryland, Chairman.
Allen Root, Medina, Ohio, representing Manufacturers.
L. M. Dewey, Merritt Island, Georgia, representing Southern Beekeepers Conference.
Lewis Parks, Watertown, Wisconsin, representing American Honey Institute.
Dr. E. F. Phillips, Ithaca, New York, representing Universities.
E. C. Davis, Louisiana, R. E. Foster, Florida representing Extension specialists.
C. B. Gooderham, Ottawa, Canada, representing Canada.
Carl Killion, Paris, Illinois, representing Bee Inspectors of America.
R. F. Remer, Sioux Honey Co., Sioux City, Iowa, representing Packers.
Guy Le Stourgeon, San Antonio, Texas, representing Bee Magazines.
R. E. Filmer, New Brunswick, N. J., representing Secretary American Honey Producers League.
Walter Diehnelt, Menomonee Falls, Wisconsin, representing State Beekeepers Association.
L. C. Dadant, Hamilton, Illinois, representing Beeswax Industry.
Newman Lyle, Sheldon, Iowa, representing Producers.
M. S. Stone, Ogden, Utah, representing Western Bee Industry.

Plans are being made to secure a representative from the "Agriculture Marketing Administration", "Sugar Division", "Federal Security Administration", and "Office of Price Administration.

Committee on Organization Improvement

The purpose of this committee is to work out some form of stimulant for the League. Every member of this committee has had a large amount of experience in organization work.

The committee members are as follows:

H. J. Rahmlow, Madison, Wisconsin, Chairman.
E. J. Milum, Urbana, Illinois.
Russell Kelty, East Lansing, Michigan.
James E. Starkey, Indianapolis, Indiana.
W. E. Anderson, Baton Rouge, Louisiana.

Plans are also underway to secure a keynote speaker from the Office of Price Administration for the evening of January 26. We will be there to think and work, so, no banquet.

Both of the above named committees are to meet the evening of January 25 at the Hotel Morrison. Be sure to make reservations early.

James Gwin, President
American Honey
Producers League.

Proposed Program

Monday, January 25, 1943

7:30 P. M.—Committees Meet.

Tuesday, January 26, 1943

9:30 A. M.—How the Package Bee Industry Will Help In Our War Efforts.
10:00 A. M.—Production and Care of Beeswax.
10:30 A. M.—Use and Value of Honeybees in Cross Pollination.
11:00 A M.—What Research In Beekeeping Will Do to Help Our War Efforts.
11:30 A. M.—Discussion and Question Period.
1:30 P. M.—Report of Committee on Organization Improvement.
Discussion.
2:30 P. M.—Report of the Committee on Honey Industry Cooperation in Our War Efforts.
Discussion.
Ten minutes time will be allowed each member of this committee to express his views, "How We Can Help Our War Efforts."

Wednesday, January 27, 1943

9:30 A. M.—What the Bee Supply Industry Will Do During the Emergency.
10:00 A. M.—Preparing and Caring for Honey.
10:45 A. M.—How Honey Production Can Be Stimulated.
11:30 A. M.—Questions and Discussion.
1:30 P. M.—Information Please—A Demonstration on How Organization Work May Be Stimulated.
2:30—How We Can Improve Honey Distribution.

This program is tentative. It may be changed, added to, or taken from. We will try and get the best speakers possible. Every State Beekeepers Association officials is urged to attend.

Pennsylvania State, Harrisburg, January 12-13

We will hold the annual meeting of the Pennsylvania State Beekeepers' Association in Harrisburg, Pennsylvania, January 12 and 13, 1943, in the Chestnut Street Auditorium, 223 Chestnut Street. The meetings will begin Tuesday morning at 9:30 o'clock. The annual banquet will be held Tuesday evening, January 12, at 6:30, in the Sixth Street United Brethren Church, Sixth and Seneca Streets. Dr. E. J. Dyce, Extension Specialist in Beekeeping of New York will be one of the speakers, also Mr. E. J. Anderson, Assistant Professor in Beekeeping, Pennsylvania State College. Mr. George H. Rea, Retired Extension Apiarist of Cornell, was to speak, however, I just received word that he met with an accident and injured his shoulder which will keep him in for some time. During this week in January there will be simultaneous meeting of all farm organizations of Pennsylvania. There will be no Farm Show during 1943.

H. M. Snavely,
Secretary.

— V —

New Rochelle (N. Y.) January 3

The next regular monthly meeting of the New Rochelle Beekeepers Association will be held at the Burling Apiaries (The home of the President) 18 Burling Lane, New Rochelle, N. Y.

There will be a review of the past year's work and election of officers. All members and those interested in beekeeping are cordially invited to attend.

This meeting will be at 2:30 P. M. on Sunday, January 3, 1943.

Come and bring your bee problems. Refreshments will be served.

Dr. Donald Watt,
Secretary.

— V —

Utah Convention in January

The Utah Honey Producers Cooperative intends to hold its annual convention early in January (exact date to be published later, locally) at the Newhouse Hotel in Salt Lake City. Among the subjects to be discussed by prominent speakers connected with honey industries are:

"A. F. B. and War-Time Honey Production." "The Practical Problems of Migratory Beekeepers." "An Interpretation of the Latest War Orders as They Affect Honey Producers." "Wax Production for War Needs." "A Report on the California Association Meeting." Other subjects of both immediate and far-reaching importance will be discussed. Wilford Belliston, the Association president will be in charge.

Will Moran, State Bee Inspector and Secretary of the Utah Honey Producers Cooperative.

George Watt

Just as we go to press, we are shocked to learn of the sudden death of George Watt, at Kearney, Nebraska. Readers will most likely remember George as being formerly with Dadant & Sons and the American Bee Journal, associated with the Apiary Department. George came with us in the twenties and was here until about 1930 when he went into commercial honey production for himself at Kearney. In this time, he expanded until he managed nearly a thousand colonies, finally taking his son-in-law, Richard Sidwell, in with him. When Dick was well seated in his job, George gave more of his attention to the management of two sets of tourist cabins, with the help of Mrs. Watt, who, with Dick, and Rita, the daughter, now survive him there.

George was one of us. He was a ready beekeeper and knew bees as few beekeepers do. His honey distributing business was outstanding. He developed large commercial routes through Kansas and served his stores regularly with well packaged goods and so built a good trade. He often said he wished he could devote all his time to selling and he did not understand why more beekeepers did not have equal success with this method. However, few are the skillful salesman George was. He could warm a buyer into business and keep him glad to continue.

A characteristic of George was geniality. He always made the sun shine for the one he met. He was an outstanding Mason and active in Lodge affairs all his life. We shall all miss him. May Ella and Dick and Rita carry on. He left something to live for.

Middlesex Association (Mass.) January 30

The Middlesex County Beekeepers Association will meet at 19 Everett Street, Concord, Massachusetts, at 7 P. M., Saturday, January 30, as the Statehouse is closed that day. Paul Tolstrup of Melrose and Woodville will speak on "Winter Work and Summer System." Mr. Archibald will be chairman of the supper which is to be put on by the men, this being ladies' night. We take this opportunity to wish a happy and successful New Year to all.

A. M. Southwick,
President.

— V —

Ohio Beekeepers' Winter Meeting, January 27-28

The annual winter meeting of the Ohio beekeepers is scheduled for January 27 and 28 of Farmers' Week at the Ohio State University, Columbus. The banquet has been arranged for the evening of January 27 with plenty of good entertainment. The general theme of the sessions will be "Gearing Ohio Beekeeping to War Time Demands." The program committee has invited Dr. Jas. I. Hambleton, in charge, Federal Bee Culture Investigations; and Dr. C. L. Farrar of the Federal Sub-Station located at Madison, Wisconsin, to speak on subjects relating to this theme. A cordial invitation is extended to all beekeepers.

W. E. Dunham.

— V —

F. C. Hinman

I wish to inform you of the passing of F. C. Hinman of Gallupville, a lifelong beekeeper, whom some of you people have met. He was the partner of Hinman & Stahlman for the past twenty-three years. He has been in poor health for several years and has been under the care of a nurse for over a year, finally passing from this life on November 9. He leaves a wife and a sister, and a host of friends who will miss him.

P. W. Stahlman.

Our older readers will recognize the name of the town, Elisha Gallup being one of the very older beekeepers and pioneers in New York state.

Recently Mr. Hinman has been working with Mr. Stahlman of the same town in eight hundred colony group of bees. These are in white clover-buckwheat belt of New York.

Sympathy of our entire staff goes to the family.

Filmer, Secretary of A. H. P. L.

John Conner who was elected secretary of the American Honey Producers' League at the meeting in Niagara Falls a year ago has joined the armed forces. Acting in his place is Robert S. Filmer of New Brunswick, New Jersey. Mr. Filmer has been appointed by President James Gwin of Madison, Wisconsin to fill the office of secretary until such a time as a meeting and an election can be held.

All correspondence and dues should be sent to Mr. Filmer.

— V —

Donald Lee, Manager, Finger Lakes Co-Op.

The Finger Lakes Honey Producers Cooperative of Groton, New York, has announced the appointment of Donald H. Lee as manager, effective December 1.

A graduate of Cornell University in 1924, he has had fifteen years experience with one of the largest dairy cooperatives in the East and brings to the beekeeping industry technical knowledge readily adapted to the packing and marketing of honey.

Born and raised on a farm in New York state, Mr. Lee understands the producers' viewpoint and the problems with which they are faced in marketing their products.

William L. Coggshall,
President.

— V —

Indiana Short Course, Purdue, January 12-13

The annual beekeeping short course, held in Farm and Home Week, will be given at Purdue University, Lafayette, Indiana, January 12-13. Out of state speakers. Complete program from B. Elwood Montgomery, at the university.

— V —

Laidlaw to Army

Harry H. Laidlaw, Jr., the efficient apiary inspector for the state of Alabama has gone into the service.

During his absence, Eugene Cutts of Montgomery, Alabama will have charge of the apiary division for the state of Alabama.

— V —

Maine Wants Bee Inspection

Maine beekeepers are active in endeavoring to get through the next session of their state legislature a bill covering the treatment and eradi-

cation of bee diseases together with proper appropriation and proper appointment of inspector.

This bill is not only backed by the leading beekeepers of the state, but by the Maine State Beekeepers' Association and the York-Cumberland Beekeepers' Association as joint sponsors.

We recommend that all Maine beekeepers get in touch with their legislative representatives and have them work for the bill.

— V —

Henry Vincent

On December 6, Henry Vincent, beekeeper and farmer, died after a brief illness. He operated approximately one hundred colonies of bees near Bryant, Indiana. He was born in Delaware County, Indiana, April 7, 1882, the son of Philip and Sarah E. (Green) Vincent. Surviving are his widow, four sisters and two brothers.

H. Vaughn Shoemaker,
Indiana.

— V —

Lee Gibble

On December 2, Lee Gibble, prominent Pennville, Indiana beekeeper, painter and interior decorator, died of a heart attack. He was born in Pennville, October 15, 1881, the son of Lewis and Laura Jane (Cartwright) Gibble. Surviving are his widow, three children, two sisters and one brother. For the past few years he has been a partner in Gibble & Bloxsome Apiaries which operated several hundred colonies. He had been actively engaged in work up until a few hours before his death.

H. Vaughn Shoemaker,
Indiana.

— V —

Illinois State Association

The Illinois State Beekeepers' Association held their meeting at the St. Nicholas Hotel in Springfield, Illinois on November 13 and 14. A crowd of about seventy-five attended this meeting and it was quite enthusiastic and was a thoroughly good meeting.

The meeting was presided over by E. F. Peterson who did a very good job. A number of interesting talks were given by A. G. Gill, Chicago; James Gwin, Madison, Wisconsin; Howard Leonard, Director of Agriculture; V. G. Milum of Urbana; Huber H. Root of Medina, Ohio; S. E. Simrel of the Illinois Agricultural Association; Harold J. Clay, of Washington, D. C.; and W. G. Duckwall of Jacksonville. Dr. F. M. Clark, Assistant Bacteriology Professor, University of Illinois, gave a very interesting talk on "Honey Fermentation—Its Causes and Prevention." Leonard J. Robins reported for the committee appointed to care care for price fixing on honey. Carl E. Killion, State Chief Inspector of Bees, made a report on his work for 1942 and also gave an interesting talk on the honey crop in Illinois for 1942. This crop was one of the poorest ever recorded in the state of Illinois.

In spite of the very poor crop showing, beekeepers in Illinois are apparently not discouraged.

The banquet on the evening of November 13 was presided over by Hoyt Taylor, secretary of the Association. Practically every beekeeper attending the meeting was present at this banquet.

— V —

Diehnelt Retained by Wisconsin

The Wisconsin association at its annual convention October 29 and 30, re-elected Walter Diehnelt, Menomonee Falls, as president. Cornelius Meyer, Appleton succeeds E. P. Elliott, Menomonee as vice-president, and Mrs. Louise Brueggeman, Menomonee Falls and H. J. Rahmlow, Madison, were renamed secretary-treasurer, and corresponding secretary, respectively.

H. C. Brunner,
Wisconsin.

— V —

Schmidt (Wis.) Makes Rotogravure Front

The Detroit News Pictorial, Rotogravure Section, of October 4, features on the front page Howard Schmidt, of Filion, Michigan, kneeling before a beehive hunting for the queen. Inside is the story, two pages, ten pictures, under the title "Michigan Beekeepers Mobilize to Make Wax for War and Sugar Substitute for All." It is a fine group of pictures. The main emphasis is on the Schmidts, whom the feature says "owns 3200 hives each with about 50,000 worker bees and queen, also one hundred or so drones, who compete for the honor of mating with the queen. 160,000,000 bees that will yield 175,000 pounds of honey this year."

A good break for the Schmidt's and also publicity that doesn't hurt the industry.

— V —

Southern Okanagan

The Southern Okanagan Division of the British Columbia Honey Producers' Association held their annual meeting recently and elected S. Oster, president for this year. Mr. Oster is one of the largest beekeepers in the district. Harvey Boone was elected vice-president, K. D. Woodworth, secretary-treasurer; and the other directors are W. Laidlaw, J. Fesser and H. Gummill, Osoyoos; and V. P. Gibson and Steve Eisenhut, Oliver.

F. H. Fullerton.
British Columbia.

(Please turn to page 39)

CROP AND MARKET REPORT

Compiled by M. G. DADANT

For our January Crop and Market page, we asked reporters to answer the following questions:

1. Since Uncle Sam put the ceiling on honey at 12 cents, has it encouraged honey movement?
2. Many large lots of honey unsold?
3. How did bees go into winter as to
   (1) Strength (2) Stores
4. How are honey plant prospects as to
   (1) Number (2) Moisture

Has Ceiling Price Caused Honey to Move?

Unanimously reporters stated that the setting of a ceiling price of 12 cents had no effect upon the movement of honey. Honey was already selling at the new ceiling price or above. In few instances beekeepers individually, had awaited a ceiling in order to set their retail prices to customers, but these instances were rare.

Few Large Lots Unsold

Throughout the entire East, Southeast and South, and the Central West, there seemed to be practically no large lots of honey unsold, most salable honey now being in the hands of jobbers and packers. In the intermountain territory, particularly Colorado and Utah, some few carlots seemed to be still available and there were a few large lots in the hands of beekeepers. However, these were rather an exception, and in most instances, all honey was out of the hands of the beekeepers.

Condition of Bees

Quite generally, bees seem to be about up to normal in strength. There are some reports of colonies having few bees on account of the impossibility of getting earlier package bees through at necessary strength. However, in most cases, the bees went into winter quarters apparently with plenty of good young bees and in good condition. We had one report of severe poisoning in New Mexico.

Stores

When it comes to stores for bees, however, we have almost universal reports that the bees are apt to need considerable feeding in the spring and some went into winter short, either through lack of fall plants or in some instances through stripping them too closely. The type of winter we have will determine also how much stores will be needed. Evidently considerable stores were used up in the fall on account of the lack of fall honey plants and the warm weather previous to November 15.

From all reports, beekeepers should watch their colonies closely as soon as warm days arrive, as undoubtedly they will be surprised with the shortage in stores. Some are reporting shortage also of pollen.

Honey Plants

As the condition of bees and shortage of stores seem to be quite below normal, we have on the other hand reports coming in that the condition of honey plants are extremely encouraging. It has been the writer's assumption that perhaps under present agricultural stress much sweet clover might be plowed under and the amount be short for next year. While this may occur in some of the central western states, it does not seem so apparent and if it does come about, there is a condition with the white clover plants that far offsets any shortage of sweet clover. The number of white clover plants in the whole white clover area extending from New York to the plains states apparently is more than it has been for years. Clover plants seem to have gone into the winter in excellent condition and as they are all young plants, should be highly desirable from a production point next year. Similarly, moisture conditions seem to be extremely satisfactory in most sections.

The southern states do not seem to have fared as well. There is quite a considerable volume of territory down there which seems to lack moisture starting with western Florida and Georgia and extending through Louisiana, Oklahoma and Arkansas. Texas seems to have fared better both in honey plants and moisture and conditions we believe there are better than they have been for some period.

The other section where conditions seem exceptionally unfortunate is in California. The shortage of late honey plants there put the bees into winter quarters in anything but a desirable condition, and the shortage of moisture in the desert areas makes the honey plant situation look quite unfavorable. Sage and wild buckwheat locations, no doubt, are going to be affected and unless bees are fed early in spring to bring them up to normal, it is doubtful whether they can be built even for the irrigated and orange sections in time to catch the early heavy flows.

All in all, outside of these deficiencies, we believe conditions are far above normal as to honey plants and at least normal as to condition of bees with probably more feeding than usual necessary next spring.

The Canadian provinces report a ceiling set on honey at 12½ cents with no ceiling whatever on the producer's own pack. One reporter states that a producer sold his pack for 16 cents with a net of nearly $5,000. Apparently the tendency in Canada is to allow the larger packers to set the ceilings and the honey producer is left to his own devices.

Conditions generally in Canada are similar to those in the United States, namely, bees in fair to average condition, with probably shortages of stores and honey plants normal with ample moisture.

Retail Honey Ceiling

In the United States the individual beekeeper is confronted with a Chinese puzzle when it comes to setting his prices on retail packages of honey and following out the OPA regulations.

Mathematicians and good business men have become disgusted with some of the figuring that has to be done in making reports and filling blanks, but they have nothing on the figuring that is necessary for a beekeeper to make sure that he is following exactly OPA regulations on ceilings and following exactly the stipulation on posting public notices and the submitting of price sheets to wholesalers, retailers, etc.

Undoubtedly, this is a temporary condition which will be remedied. Otherwise, we think one of two things will happen, either the ordinary beekeeper who is selling in moderate quantities to stores and direct to the public will completely ignore the price ceiling or he will entirely go out of the retail business, sell his honey in bulk lots at 12 cents and let the big packer worry. Neither of these alternatives is desirable and we do not believe that the packer himself would welcome such a complete reversal of present conditions in the distribution of honey.

Undoubtedly some remedy or some sort of an easy schedule to follow for the setting of prices will be worked out by the OPA before the new honey crop is available for distribution.

• THE MARKET PLACE •

BEES AND QUEENS

FOR SALE—Package Bees, Queens and 3 and 4 frame Nuclei. Write for 1943 prices. Walker Apiaries, Lexington, Texas.

CAUCASIAN package bees and queens. Write for 1943 prices. Lewis & Tillery Bee Co., Greenville, Alabama.

NOTICE—To our friends and customers. I am in the Army. Send your orders for bees and queens to Tillery Brothers, Greenville, Alabama, who are operating our apiaries for the duration. P. B. Skinner Bee Co., Greenville, Alabama.

GREEN'S Italian queens. Do you want the best to be had, at a price you can afford to pay? 50c each, any number. Start shipping about March the first. D. P. Green, Rt. 2, Deland, Florida.

1943 PACKAGE Bees and Queens. Write for price on your needs. Address Hessmer Bee Farm, Hessmer, La.

THREE BANDED Italian Bees and Queens for spring delivery. Let us give you our prices. Alamance Bee Company, Geo. E. Curtis, Mgr., Graham, N. C.

CARNIOLAN, CAUCASIAN Bees and Queens. 1943 prices on request. Tillery Brothers, Greenville, Alabama.

PACKAGES BEES AND QUEENS—Pure Italian. Prompt shipment, low prices and honest dealings, CRENSHAW COUNTY APIARIES, RUTLEDGE, ALA.

HONEY FOR SALE

HONEY FOR SALE—We buy and sell all kinds, carloads and less. The John G. Paton Company, Inc. 630 Fifth Avenue, New York, N. Y.

HONEY FOR SALE—We buy and sell all kinds, any quantity. H. & S. Honey and Wax Company, Inc., 265-267 Greenwich St., New York.

WE BUY and sell any quantity, all varieties. B-Z-B Honey Company, Alhambra, California.

HONEY PACKERS—Write us for prices on carload lots of California and Western Honey. We stock all varieties. HAMILTON & COMPANY, 1360 Produce Street, Los Angeles, California.

FANCY WHITE CLOVER COMB honey, $5 case; No. 1 $4.50. In window front cartons. Good used 60's, 35c case. Extracted honey and bench metal working lathe wanted. Bizzy Bee Ranch, No. Abington, Massachusetts.

HONEY AND BEESWAX WANTED

PLEASE NOTE. While we use every precaution to list only reliable buyers in this department, we advise readers to sell honey for cash or C. O. D. unless they have thoroughly investigated the buyer as responsible on open account.

CASH for Extracted Honey. Bizzy Bee Ranch, No. Abington, Mass.

WE ARE IN THE MARKET for car lots or truck shipments of honey. Submit samples and price delivered. Bee-Kist Products Co., San Antonio, Texas.

HONEY WANTED—Truck or carload lots delivered to Sioux City, Iowa. Write us at Wendell and submit sample. R. D. BRADSHAW & SONS, WENDELL, IDAHO.

WANTED: Cars and less than cars of extracted, comb and chunk honey. Spot cash paid for all grades. Submit price and sample. Will call for it by truck if in 300 miles of Kansas City. Can furnish or return containers. Frank King & Son, 5214 St. John Ave., Kansas City, Missouri.

Copy for this department must reach us not later than the fifteenth of each month preceding date of issue. If intended for classified department, it should be so stated when advertisement is sent.

Rates of advertising in this classified department are seven cents per word, including name and address. Minimum ad, ten words.

As a measure of precaution to our readers we require reference of all new advertisers. To save time, please send the name of your bank and other reference with your copy.

Advertisers offering used equipment or bees on combs must guarantee them free from disease or state exact condition, or furnish certificate of inspection from authorized inspectors. Conditions should be stated to insure that buyer is fully informed.

WE PAY CASH for extracted clover honey. Fair-Field Honey Company, Millersport, Ohio.

WANTED—White or amber extracted honey. Carload or less, with or without exchanging cans. Cash waiting. Send sample and best price to: Honeymoon Products Co., 39 E. Henry St., River Rouge, Michigan.

CASH FOR YOUR WAX the day received. Write for quotations and shipping tags. Walter T. Kelley Co., Paducah, Kentucky.

WANTED--Honey and Beeswax. Mail samples, state quantity and price. Bryant & Cookinham, Los Angeles, Calif.

ALL GRADES extracted honey wanted. Bee supplies and honey containers for sale. Prairie View Honey Co., 12243 12th Street, Detroit, Michigan.

FOR SALE

FOR SALE—Complete outfit 250 colonies, extracting supers and frames, Root 45-frame extractor, uncapping machine, tanks, small extractors, trailer, containers and other items. MacNeill, 11339 S. Bell, Chicago.

1000 used bee shipping cages, mostly 2-lb. Good condition, 20c each, feeder cans included. A. A. Martin, Mitchell, Nebr.

250 Package bee cages, complete, A1 condition. Make offer. Ohmert's Bee Farms, Dubuque, Iowa.

1000 Colonies of bees with equipment in A1 condition. Owners in Navy. Write Chas. Edson, Gridley, California.

FOR SALE—Complete beekeeping equipment including 50 hives, 100 supers, 2-frame extractor, steam knife, etc. Write for list. J. F. Brenckle, Mellette, South Dakota.

200 comb supers, painted, complete for 4x5 sections, $1.00 each. L. M. Gulden, Englevale, North Dakota.

LEWIS BEE SUPPLIES, Dadant's Crimp Wired Foundation. Prompt shipment from large stock. Simeon B. Beiler, Authorized Distributor, Intercourse, Pa.

WANTED

WANTED TO BUY—One Whirldry Capping Dryer, also one forty-five or fifty frame extractor. Give all particulars and price. J. W. HARDY, Huntley, Montana.

WANTED—Large bee outfit, honey packing or supply business in Midwest to manage on share or purchase plan. Address: Postoffice Box 454, Chicago, Illinois.

BEE HIVE MACHINE or dado set. Curtis Wharton, Junctura, Oregon.

POSITIONS AND HELP WANTED

WANTED—Man to work in large apiary consisting of six thousand colonies of bees. Must have some experience. Good wages and opportunity to man who will qualify. Give qualifications and experience. POWERS' APIARIES, Parma, Idaho.

WANTED—Experienced man in Queen, Package and Honey Production. Steady work all year. Give full particulars when replying. Al Winn, Rt. 1, Box 729A, Petaluma, Calif.

WANTED—Employment as queen breeder or honey producer contingent on my discharge from Army. Forty-five years old; twenty years' beekeeping experience; good health. Private Heber E. Coffey, Co. "C", 51 Med. Tng. Br. First Platoon, Camp Barkeley, Texas.

WANTED—Experienced package or queen man, also helpers for 1943 season, beginning March 1st. State wages expected and qualifications. Jensen's Apiaries, Macon, Mississippi.

WANTED—Experienced beeman, married or single, also helper with some experience. Write full particulars including age, experience, wages. Barrett Apiaries, Howell, Michigan.

WANTED—Man for general bee work. Prefer draft exempt. Furnish references. Give wages expected. J. W. Hardy, Huntley, Montana.

WANTED—Queen breeder and two helpers for package shipping during the season of 1943. N. Forehand, Florala, Alabama.

WANTED—Man to work in our apiaries during coming season. Fred D. Lamkin, Union Springs, New York.

WANTED—Experienced beeman. Give full particulars in first letter, wages, height, weight, experience, etc. C. H. Schader, Sunnyside, Washington.

HELP WANTED—Man with several years' experience with bees, and one with less experience, married or single. Highest wages paid to well experienced help. M. E. Ballard, Roxbury, N. Y.

WANTED—Experienced or inexperienced help. Give age, weight, height and experience, with wages expected, room and board included. Schultz Honey Farms, Ripon, Wis.

BEEKEEPER, much experience, believe can handle almost any branch. Available by spring. Single and above draft age. Go anywhere. Now employed by self. Salary must be good. If interested, let's get in touch. Experienced with large outfits. Box O, care American Bee Journal.

SUPPLIES

PINARD'S nailless queen cage. Agents—Diamond Match Co., Chico and Los Angeles, California; Weaver Apiaries, Navasota, Texas. Pinard manufacturer, 1794 Hicks Ave., San Jose, California.

YOUR WAX WORKED into quality medium brood foundation for 16 cents pound; 100 pounds $12.00. Fred Peterson, Alden, Iowa.

WRITE FOR CATALOGUE. Quality bee supplies at factory store prices. Prompt shipment. Satisfaction guaranteed. The Hubbard Apiaries, Manufacturers of Bee Supplies, Onsted, Michigan.

THE ONLY COMPLETE LINE of wax rendering equipment ever offered—the "Perfection" line. A size and type suitable for every commercial beekeeper. Write for descriptive circular. Robinson's Wax Works, Mayville, N. Y.

COMB FOUNDATION at money-saving prices. Plain, wired, and thin section. Wax worked at lowest rate. Combs and cappings rendered. Robinson's Wax Works, Mayville, N. Y.

MEETINGS AND EVENTS

(Continued from page 36)

York-Cumberland (Maine) Officers

The annual meeting of the York Cumberland association at Portland, November 15 resulted in the following officers for 1943: President, Chester A. Merrill, Portland; Vice-president, Walter Gerald, Portland; Secretary-treasurer, Dr. Horatio C. Meriam, Bar Mills; and the Executive Committee, Frank A. Hagar and Milton S. Libby, both of Portland, the latter having served three years as president declined renomination.

It was decided to hold two indoor meetings this winter and at least one field meeting next summer. The next meeting will be held at the residence of the president elect, 112 Rockland Avenue, Portland, Sunday, January 31, at 3 P. M.

H. C. Meriam,
Secretary.

Bronx County (N. Y.) Meeting

The meeting of the Bronx County Beekeepers' Association will be held Sunday the 10th of January at 2:30 at the home of Paul C. Mitchell, 999 Pelham Parkway, Bronx. (This is on the property of the institute for the education of the blind.)

We are anticipating an expert on bee matters to address the meeting, and also think our host is to show some interesting pictures on bee subjects. A very cordial invitation is extended to anyone interested in beekeeping.

Harry Newman,
Secretary.

— V —

DO YOU LIKE THIS ISSUE?

If you like this issue, tell us. If you don't like it, tell us. It is new. The major changes are not important, but there are quite a few that are different from the 1942 season.

Readers often hesitate to write. Why should they? We enjoy the letters. Do not be afraid to criticize. It is helpful. Often it is better to criticize than to praise. Either way, just drop that note and make us happy.

— V —

COMPUTING BEEKEEPERS FOR DEFERMENT

We are informed that a proposed basis for computing the position of the beekeeper for deferment under the classification of beekeeping as important to agriculture by the Selective Service System has been worked out on the basis of twenty-five colonies of bees being equivalent to one dairy cow. So, beekeeping has a place along with dairy, livestock and poultry farming in the protection of labor. Since twelve dairy cows are required for the deferment of one full time laborer, three hundred colonies of bees will be the unit for a commercial beekeeper. This gives draft boards something definite to go on as soon as the announcement has been made by the Selective Service System.

Likely some point system will also be employed for computing lesser units in conjunction with other strategic farm jobs, so that a beekeeper who is also partially engaged in dairying, livestock or poultry will have his bees considered along with the other projects in a deferment classification. It will be noted that the deferment proposal makes it mandatory that a beekeeper in any classification be on a full time basis.

This photo shows a portion of one of our queen yards containing over 6,000 nuclei

A-B-J Ads Will Bring You Customers

THE POSTSCRIPT

S. W. Edgecomb, professor of horticulture in the Manitoba University at Winnipeg, sees a chance for worth-while work in the improvement of native plants of that region. So little has been done in that field he will find vast opportunity. Such fruits as the saskatoon a variety of Juneberry and the buffalo-berry may one day be grown commercially with improved varieties, as we now grow apples, plums and cherries. We have gone far afield for ornamental trees such as the mountain ash which we have brought from Europe and Asia when there are some very fine native species hardy far to the north. Once serious attention is given to such a project we can expect surprising results. Having known Edgecomb as an aggressive horticulturist I am willing to predict substantial results from anything that he undertakes.

—V—

James Starkey writes about a tree locally called "Chinese locust" which blooms in mid-summer. Indiana beemen are enthusiastic about the way the bees work the blossoms. I am wondering if he refers to the Pagoda-tree also called Chinese Scholar Tree, (Sophora japonica.) This tree comes from China and Korea and answers his description. It is related to the coral bean or frijolillo which grows along the streams in Texas and New Mexico. The beans of the Texas species are poisonous and are reported as used by some tribes of Indians as an intoxicant. Texas beemen get considerable honey from this source along the Nueces.

—V—

A sample of wild huckleberry honey received from E. Martin, of Goodland, Missouri, revives pleasant memories of the years 1902 to 1905 when we lived in the Ozark Mountains. The wild huckleberry is a very common shrub in the oak and hickory woodlands in that region. Mr. Martin writes that the year 1937 brought the best flow from huckleberry in his memory. The bloom started about May first and lasted about three weeks. Swarming started on May 10. Usually the flow is ten days to two weeks with favorable weather.

—V—

I am not good at describing honey flavors but this sample from Mr. Martin is worthy of special effort. It is very dark in color with a slightly reddish cast. This honey is thick and very rich with a cloying sweetness which leaves one with a sense of having had enough after eating but little. There is no disagreeable aftertaste, neither is there any special outstanding flavor to mark it as unusual.

Where this shrub is abundant, a good flow in April or early May provides ideal conditions for establishing package bees and enables them to build new combs quickly.

—V—

My nephew, Paul Pellett, is with the Americans in Africa. His presence there lends a vital interest to every scrap of news that comes from that fighting front that we could not feel otherwise. By day and by night we keep wondering how it goes with Paul, and try to imagine the conditions under which he is fighting. It is hard for us who are well fed to understand how hungry he was when he traded his undershirt to a native for four eggs and we probably little appreciate the significance of his comment on how good those eggs were. When a fellow parts with his shirt to fill his stomach he is faced with a hard choice. It takes a lot of food to feed a million fighting men at the front. When it fails to get to them on time the boys are very uncomfortable. Let us not complain of the minor adjustments we must make here at home but do all that we can to insure that plenty of food gets to Paul and the boys who are with him in the front lines.

—V—

F. A. Bell, of Brook Park, Minnesota, has set 2000 plants of anise-hyssop and reports it to be a heavy yielder. Nearly all reports agree that anise-hyssop is a very unusual honey plant. Bell writes that livestock will eat the plants in either the green or dry state and suggests that mixed with corn for silage it would provide good forage.

The beekeeper will be very fortunate if some use can be found for this plant which will insure its cultivation. With so many good forage plants it is doubtful whether others beside beemen can be induced to cultivate it for such use.

—V—

A very interesting letter comes from a western physician who at 63 is giving thought to retiring from practice. He is seriously considering turning his attention to beekeeping. I can think of no more interesting occupation for one who has made provision for his financial needs to the point where he need keep only as many bees as he can care for with pleasure. If faced with the need of providing his entire income from the the bees it might require a rather strenuous activity for one of his age. Some of the happiest men of my acquaintance have been men in their later years devoting their attention to bees.

—V—

Interest in sainfoin as a forage crop never dies. Letters continue to come to me asking for more information. This plant has done surprisingly well in our test gardens over the past several years and the bees work the flowers constantly during its entire period of bloom. The growth of the plant is similar to alfalfa but the flowering time is earlier. If both were grown for seed in the same neighborhood a greatly lengthened honeyflow would result since the sainfoin crop would be off before the alfalfa flow began. With us the bees work the sainfoin far better than alfalfa. Unfortunately there is little seed of sainfoin available in this country. War has cut off the supply which usually has come from Europe.

—V—

For many years the Langstroth and Dadant, "Honeybee" has mentioned the following:

> "In the vicinity of the Cape of Good Hope, there is a blossom, the **Protea mellifera,** which probably surpasses all others in the abundance of its nectar. Indeed, it is so abundant that the natives gather it by dipping it from the flowers, with spoons."

—V—

This particular Protea is only one of about 100 species native to the region. Some are trees of moderate size while others hug the ground. Most of them are shrubs of moderate size. This group is described at length by Ernest Wilson, famous explorer, in his book, "Plant Hunting."

He says: "Overflowing with honey are the pink and white heads of the **Protea mellifera,** known to the Boers as Honeypots. The honey is collected and made into a kind of sugar, the blossoming season being a great occasion for picnics." Wilson spent many years in visiting far places in search of plants for American gardens. He says further: "In my judgment the handsomest inflorescences in the world is that of **Protea cynaroides,** seen on its native heath."

—V—

Protea mellifera is cultivated to some extent in California gardens but we hear no such reports of abundant nectar secretion here as in its native South Africa. It is a bit surprising to hear that only three of the 100 species have been brought to this country. One who reads Wilson's accounts of this group of plants will at once want to see them growing in suitable environment in American gardens. Unfortunately most of the country is too cold for these tender exotics but that is one of the advantages for which California is famous, its ability to enjoy the finest products of the warmer regions.

—V—

As one grows older he regrets more and more the long months when the garden is dormant and all plant life slumbers in anticipation of the return of spring. What a privilege our Florida and California friends really enjoy.

Frank C. Pellett.